

Public Utilities

Volume XLV No. 6



March 16, 1950

QUODDY TIDAL POWER FOR NEW ENGLAND AND NEW BRUNSWICK?

By Lincoln Smith

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The Problem of Replacement Cost And Tax Depreciation

*An Interview with The Honorable Herbert R. O'Connor
United States Senator*

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A 5-day Workweek for Business With 7-Day Jobs

By Joe R. Ong

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The World Power Conference

By J. A. Whillow

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What Else Is Gas Good for?

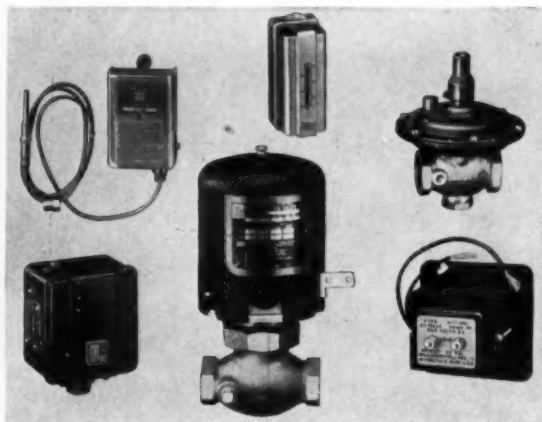
By T. N. Sandifer

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Public Utilities

FORTNIGHTLY

VOLUME XLV

MARCH 16, 1950

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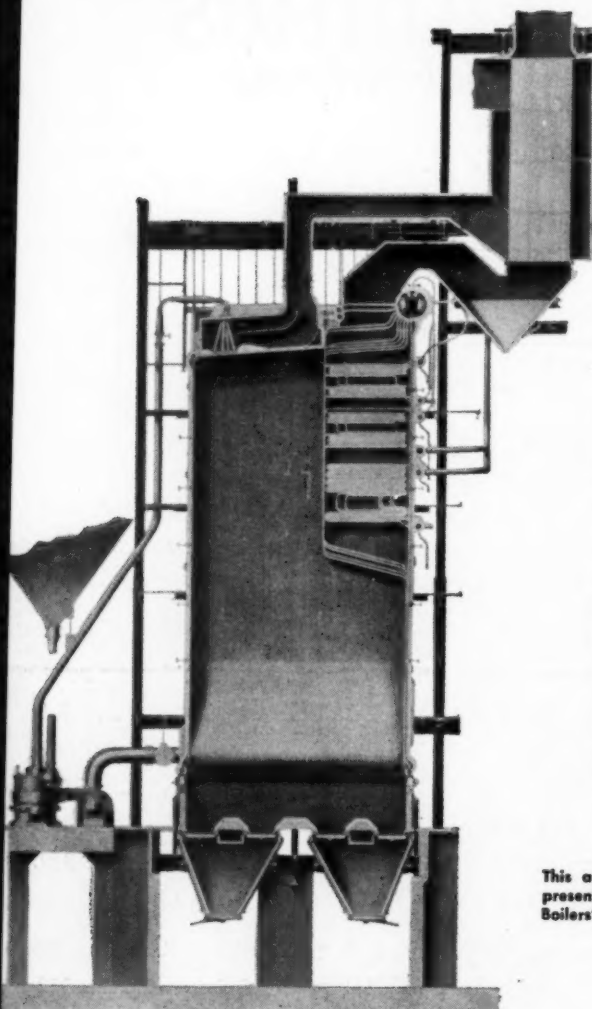
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West Penn doubles capacity

with



Generating capacity of new Mitchell Station has been doubled with the recent installation of a third B&W Boiler and a second 80,000 Kw. turbo-generator. This steam-generating unit brings to 22 the total number of B&W boilers serving West Penn Power Company.

Years of satisfactory performance of other B&W boilers at the Company's Springfield and Connellsville stations strongly influenced selection of B&W steam to provide additional power for the expanding industrial area served by West Penn lines.

This and 45 other recent B&W boiler designs are presented in the latest edition of "Central-Station Boilers", Bulletin G-67, now available.

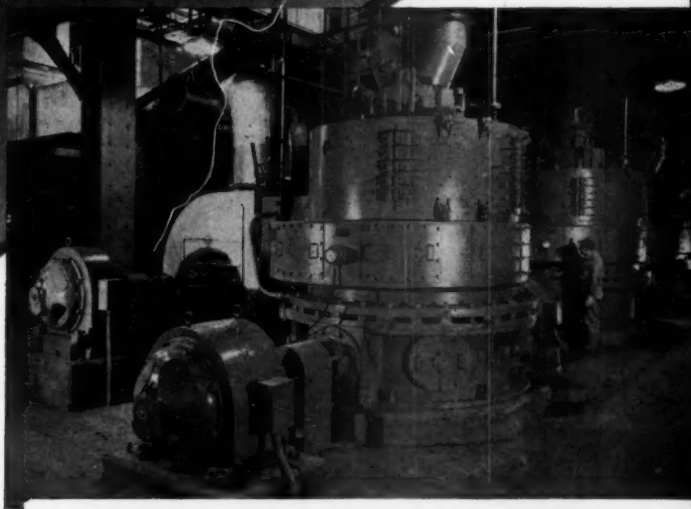
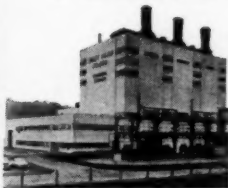
Three B&W Radiant boilers of this design are now serving the new Mitchell Station of West Penn Power Company near Courtney, Pa. Total steam capacity is 1½ million pounds per hr. at 1550 psi, 925 F.



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with **W STEAM**

PENNSYLVANIA



3 B&W Type E Pulverizers as applied to this latest boiler.



BABCOCK

Pages with the Editors

IT has been nearly two decades since the controversial Passamaquoddy project for hydroelectric development of the tidal waters in the Bay of Fundy began to make headlines in the days before the first New Deal. Somehow or other, it has always been bracketed in our mind with the Florida ship canal, as two somewhat abortive "make-work" schemes which were started by executive order and blocked by congressional opposition.

BUT while the Florida ship canal seemingly has developed no noticeably new support, talk about the Quoddy project is revived every now and then. Now that the Truman administration apparently has decided to spotlight the New England power supply situation, we shall be hearing more about Quoddy's possibilities. It will be recalled that Secretary of Interior Chapman, in a recent letter to Congress, conveyed the President's desire that a New England study commission be set up. And this would include not only a study of New England's hydroelectric potentialities on the Connecticut and Merrimack rivers. It would also include a special study of the Passamaquoddy possibilities along with the St. Lawrence situation.



LINCOLN SMITH

MAR. 16, 1950

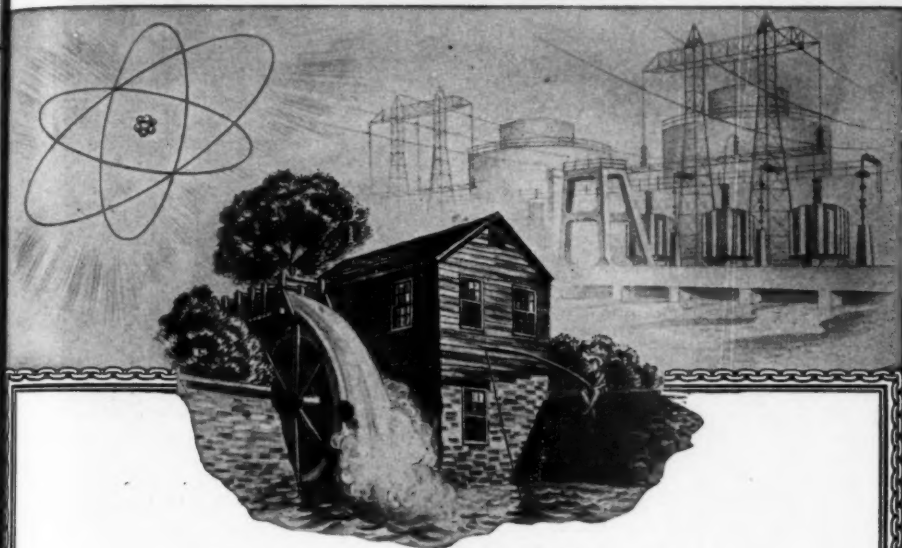


SENATOR HERBERT R. O'CONNOR

IT is now generally understood, however, that there is an international alternative for the all-American plan for Quoddy development. It is the all-American plan which has been the target of most of the criticism attacking Quoddy as being too expensive to be practical. The opening article in this issue is a review of this international proposal for the development of Quoddy tidal power for use on both sides of the international boundary. LINCOLN SMITH, author of this article, is a political scientist, specializing in politics and public administration, and a visiting scholar at Columbia University this year. A native of Maine, he is a graduate of Bowdoin College. He took his AM and PhD degrees at the University of Wisconsin, and has taught at Yale, the University of Pennsylvania, and University of California at Los Angeles. The University of California Press is publishing (probably during the summer of 1950) a book completed in December, 1948, on Maine and New England power problems.

* * * *

ORIGINAL cost has long been a controversial standard of valuation with respect to the regulation of rates for pub-



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lic utilities. The conflict between the theories of so-called "prudent investment" and some recognition of replacement of cost or cost to reproduce properties has been echoed throughout most of the history of public utility rate regulation in the United States. But there is, during the present inflationary period, an equally pressing economic problem which stems from the same source. It is the question of computing allowance for depreciation or amortization for taxation purposes on the original cost of plant or equipment, as distinguished from the greatly increased cost of replacing such items.

We publish in this issue, beginning page 341, an exclusive staff interview on this important topic by U. S. SENATOR HERBERT R. O'CONOR, Democrat of Maryland. Born in Baltimore in 1896, SENATOR O'CONOR was graduated from Loyola College ('17) and the University of Maryland Law School ('20). Following his admission to the bar he entered the field of regulatory practice as people's counsel for the Maryland Public Service Commission in 1923. He was later elected to two terms as state's attorney in Baltimore and as attorney general for the state in 1934. He was elected governor of Maryland in 1938 and reelected for a second term in 1942. He was elected to the U. S. Senate in 1946 for a term ending in 1953.

* * * *

THE article about applying a 5-day work week for a public utility in business with a 7-day work schedule (beginning on page 344) is written by JOE R. ONG, consulting transportation engineer with offices in Cincinnati. A graduate of Purdue University and a member of the Institute of Traffic Engineers, MR. ONG has been active for some time in the American Transit Association on committee work involving fares, schedules, and operating economics for transit companies. Until this year, when he went into consultation practice, MR. ONG was an operating official of the Cincinnati Street Railway Company, which he first joined in 1926. Since that time he has also done consultation work for other transit or-

MAR. 16, 1950



JOE R. ONG

ganizations in the United States and Canada in some eighteen cities, including Los Angeles and Washington, D. C.

* * * *

IN 1936 the third World Power Conference was held in this country. In 1950 the fourth World Power Conference convenes in London. Beginning on page 351 is an article comparing the international setting for both meetings, with special notice of the problems created by current socialistic trends. The author is J. A. WHITLOW, a native of western Missouri and graduate in electrical engineering at the University of Missouri. In addition to teaching and regulatory experience, MR. WHITLOW was for some years an official, first with the Arkansas Power & Light Company, and until recently with the Public Service Company of Oklahoma.

* * * *

T. N. SANDIFER, whose article on important by-products of the natural gas industry begins on page 355, has spent many years writing national news.

THE next number of this magazine will be out March 30th.

The Editors



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SOME COMMENTS ON DIVIDEND POLICY

Dividend policy can be the key to financial success or failure of a public utility company. John F. Childs, of the Irving Trust Company, has analyzed various factors which enter into the delicate and important task of deciding how high a regular dividend payment should be with due regard for stability and the attraction of new equity capital. There are suggestions here which company officials, dealing with finances, will want to examine and weigh carefully.

THE DEMOCRATIC WAY AT THE WORK PLACE

S. A. Leahy, of the Detroit Edison Company, has written an account of a practical approach to the public utility company's problem of finding a common denominator for employee relation activities. The development and training of supervisors require that each person come to feel a part of the company. General results of a survey of the attitudes of non-supervisory people are also described.

PUBLIC UTILITY ODDITIES

Along the lighter side, there are many news items about things which happen in the course of a day's work in the public utility business which bring a laugh to those who hear them, if not to those who experience them. Harold Helfer, professional writer of Washington, D. C., has made an amusing collection of such items.

STOCK PURCHASE PLANS FOR EMPLOYEES, PART I

The advantages and disadvantages of selling public utility shares to employees have been examined from a most objective point of view. Richard A. Rosan, New York attorney, has written a 2-part account of the prizes and pitfalls to be weighed in determining whether to adopt a program. Part I deals with an analysis of various kinds of stock purchase plans.



Also . . . *Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.*

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*Former chairman, Atomic Energy
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Vice president in charge of industrial relations, Thompson Products Company.

"To think of human relations in terms of the individual approach will be the great influence and development of the next ten or fifteen years and will speed us on our way toward building a more productive and more harmonious America."

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The Journal of Commerce.

"Exaggerated and baseless pessimism on the part of business plays directly into the hands of those who claim that government spending and investment, or new rounds of wage increases, are essential to prevent a deep depression."

JOHN TABER
*U. S. Representative from
New York.*

"The fiscal health of the nation should be above partisan politics but unfortunately the President of the United States himself seems unable to distinguish between the treasury of the Federal government and the treasury of the Democratic party."

H. G. MEADOR
*Director of divisional sales,
Gulf Oil Corporation.*

"... the way to strength and prosperity lies not in hoarding what we have but in using it to create ever more and better products ... strength and industrial resources are built through use. The more we need, the more we find or create—that is the road to plenty."

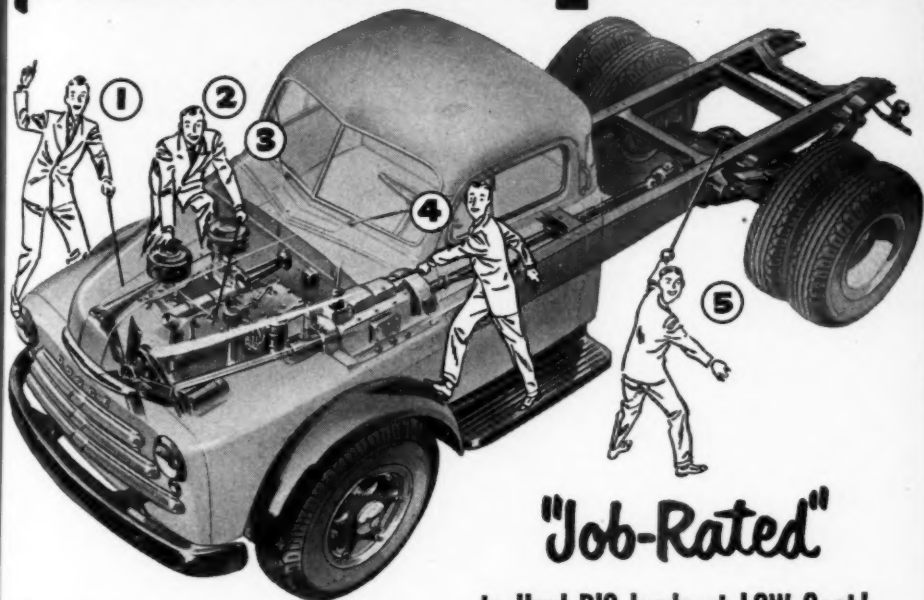
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The Wall Street Journal.

"It takes capital to make jobs, and only work at jobs produces goods and services. The supply of these latter sets standards of living. Increasing capital investment means rising living standards; if no investment, no widespread bettering of the way of life."

SUMNER H. SLICHTER
Professor, Harvard University.

"[The government should] remove some of the impediments which its policies impose upon the expansion of industry . . . and . . . remove the special penalties which it now imposes on people who attempt to derive income from the ownership of stock in corporations."

THOMAS G. SPATES
Vice president, General Foods Corporation.

"For half a generation now leaders of government and leaders of organized labor have been appealing to the weaknesses in man—fear, greed, laziness, and self-pity. I want the leaders of business to base their platform on an appeal to the strengths in man—courage, enterprise, industry, and self-respect."

ROBERT G. DUNLOP
President, Sun Oil Company.

"There is no room for doubt that adequate profits, in this industry as well as others, must exist in fact or in promise before replacement or expansion of facilities will occur. A tax which confiscated profits as being 'excessive' would have almost the same effect as a law which directly prohibited further industrial expansion."

HARRY FLOOD BYRD
U. S. Senator from Virginia.

"We know that private enterprise is the foundation stone upon which this nation has built its freedom and its progress. It is a good system, and in most respects it is tough and durable. But we know that it cannot survive excessive regimentation, it cannot survive excessive taxation, and it cannot survive excessive government competition."

Statement by Committee for Economic Development.

"To substitute direct controls for the price system is to attack the private enterprise system at one of the points where it works best and to introduce government intervention in an area where it is bound to be inefficient. The process—largely automatic—of adjusting the supplies of the multitude of commodities to the demands for them is one of the great achievements of the market economy."

MILLARD G. FAUGHT
New York industrialist.

"[Nowadays] the pursuit of security on somebody else's payroll is held out as far wiser incentive than the doubtful prospect of being one's own boss and perhaps creating new jobs for others. This trend has proceeded to the point where forty-one out of every one hundred Americans would rather look to the government for their jobs and security than to private employment. One out of every tenth job in the United States is currently supplied by the government."

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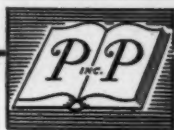
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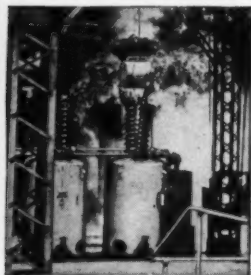
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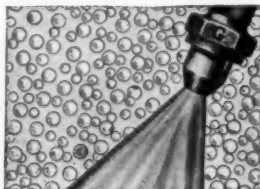
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Utilities Almanack

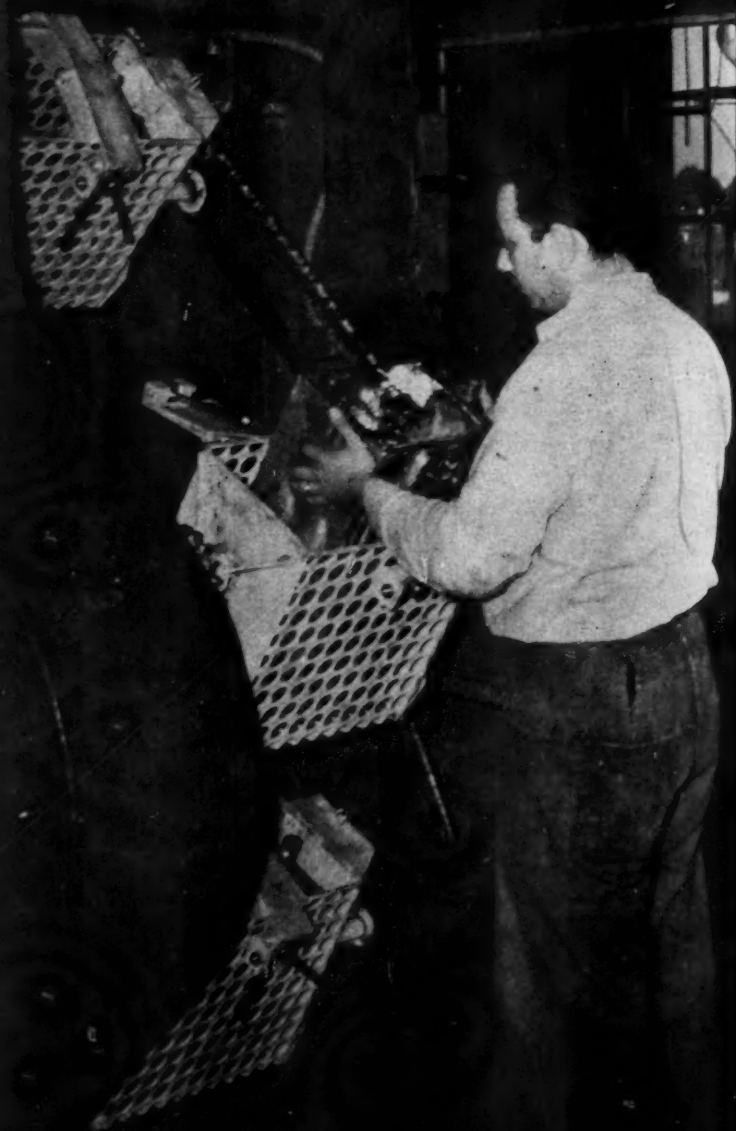


MARCH



16	T ^h	† American Water Works Association, New England Section, begins business meeting, Boston, Mass., 1950.
17	F	† Maryland Utilities Association will hold one-day meeting, Baltimore, Md., Mar. 31, 1950.
18	S ^a	† American Gas Association will hold distribution, motor vehicle, and corrosion conference, Detroit, Mich., Apr. 3-5, 1950. 
19	S	† American Water Works Association, Canadian Section, will hold annual meeting, Niagara Falls, Ontario, Canada, Apr. 3-5, 1950.
20	M	† Conference for Protective Relay Engineers, Department of Electrical Engineering, begins College Station, Tex., 1950.
21	T ^u	† American Gas Association, Industrial and Commercial Gas Section, will hold sales conference, St. Louis, Mo., Apr. 4-6, 1950.
22	W	† Illinois Telephone Association begins annual convention, Springfield, Ill., 1950.
23	T ^h	† New England Gas Association begins annual meeting, Boston, Mass., 1950.
24	F	† New Jersey Sewage Works Association ends annual convention, Trenton, N. J., 1950.
25	S ^a	† National Rivers and Harbors Congress ends meeting, Washington, D. C., 1950.
26	S	† Edison Electric Institute will hold annual sales conference, Chicago, Ill., Apr. 4-6, 1950. 
27	M	† American Gas Association, Residential Gas Section, begins midwest regional gas sales conference, Chicago, Ill., 1950.
28	T ^u	† American Public Power Association begins annual convention, Washington, D. C., 1950. † Nebraska Telephone Association begins annual convention, Omaha, Neb., 1950.
29	W	† Missouri Valley Electric Association begins engineering conference, Kansas City, Mo., 1950.

"Dry Cleaning" Gas Meters



Public Utilities

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Quoddy Tidal Power for New England and New Brunswick?

The controversial Passamaquoddy project for utilizing tidal currents in the Bay of Fundy has been recently revived by a recommendation of President Truman to Congress for the creation of a special commission to study New England's hydro-electric power potential and allied subjects. It is not generally understood, however, that there is an international alternative for the all-American plan for "Quoddy" development—which has been judged too expensive.

By LINCOLN SMITH*

MUCH of industrial New England is awaiting the report of the International Joint Commission between the United States and Canada on the apparent economic feasibility of the Passamaquoddy tidal power project in Maine and New Brunswick. In late August the commissioners held hearings at St. An-

draws, New Brunswick, and Eastport, Maine, and are at present studying the evidence. The report to their respective governments is anticipated next April.

The instructions and appropriations by the two governments asked the commission to review existing plans for a tidal power development and the scope and estimated cost of an investigation to determine whether any of these, or other plans, for using these waters is

*For personal note, see "Pages with the Editors."

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practicable and desirable from the point of view of public convenience and necessity. The IJC created a Passamaquoddy engineering board consisting of two American and two Canadian engineer members to report on this limited reference.

AN unfavorable report will mean the doom of Quoddy for many decades; a favorable report will pave the way for executive action in the negotiation of a treaty, and congressional and parliamentary ratification, legislation, and appropriations to study the unit cost of such power.

Although years ago Quoddy was dubbed "Roosevelt's folly," and the late Dexter P. Cooper, originator of the plan of harnessing the 18-foot tides to furnish between 500,000 and 700,000 horsepower in electrical energy, was called a "dreamer," Army Engineers and the Federal Power Commission now pronounce the project feasible from an engineering standpoint.¹

The need for this huge block of power in Maine, New England, and New Brunswick is now axiomatic, but the vital question is whether this power would be cheap. The commission's report will not answer that question, but will indicate if there is a *prima facie* case that Quoddy can produce inexpensive electrical energy. The next step would be for the two governments jointly to sponsor an intensive investigation to determine how inexpensive the power would be. Then the United States and Canada would be in a position to determine the general policy

whether or not to go ahead with construction work.

COOOPER's original plan was for a Canadian-United States project in the international waters of the Bay of Fundy. After Canada's rejection of the project in 1929, Cooper projected an All-American plan, which he hoped would be the initial step in the consummation of the international project should Canada later desire to participate. But the All-American project was always vulnerable to attack on power cost, because the major installations would be on the American side.² Thus the smaller project would have involved about two-thirds the cost for about one-half the amount of power to be expected from the international project.

Although the PWA and the Army Engineers did some actual construction work early in the first Roosevelt administration, studies and reports by the Federal Power Commission in 1934 and 1941 branded All-American Quoddy as not feasible economically at that time.³

To date no real study of international Quoddy has been made. Cooper's original construction cost estimates were exceedingly rough, and even those became more unreliable with the change in price levels over the last two or three decades. Assertions were made that the United States and Canada jointly could produce power at a cost ranging from two to three mills

¹ Lincoln Smith, "Tidal Power in Maine" in journal of *Land Economics*, August, 1948, pages 239-52.

² FPC Report of January 3, 1934; *Passamaquoddy Tidal Power Project*. Senate Document 41. 77th Congress. First Session. April 7, 1941.

³ "Memorandum on Information Requested by Senator Leverett Saltonstall," FPC mimeo. ms., February 17, 1949. Made public July 10, 1949, page 6.

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per kilowatt hour. If true, international Quoddy would be a highly desirable contribution to the power problems of the New England states and the Maritime provinces.⁴

Although the All-American project has been studied and adjudged too expensive, no real evidence has ever been produced for or against the international plan except that it can be constructed and made to work. The desirability of a thorough study was suggested by the FPC in 1941.

Two basic paragraphs from that report were:⁵

Tidal power, while not economically feasible of development at this time, possesses certain distinct advantages over other sources of power, the water supply being thoroughly dependable and always definitely predictable, with head limitations definitely known. Unaffected by droughts, floods, or ice jams, the tides provide the most dependable and most permanent known source of power. As high-grade fuel prices increase concurrently with expanding power markets in the northeastern states and contiguous Canadian territory, the development of tidal power will, at some time in the future, become economically feasible and desirable.

The fact that the development and utilization of tidal power is contra-

indicated at this time should not preclude thorough exploration of the possibilities of a large international tidal power project at Passamaquoddy by the governments of the United States and Canada.

COMMISSIONER Roger B. McWhorter of the IJC, also a member of the FPC staff, read the above paragraphs at the hearing in New Brunswick to emphasize the point that, while the All-American plan was discarded, the hearing was being conducted on international Quoddy which has not yet been studied.

Ex-Senator A. O. Stanley, then U.S. chairman of the IJC, in distinguishing between the two main Quoddy plans, said: "We spent a little money on one corner of Maine, but not a penny on this international possibility."⁶ In winding up the hearing at Eastport, Senator Stanley declared: "I believe that this resource is needed now more than ever before and we are going to work on it. . . . When you get Yankee ingenuity and Canadian capacity behind anything, something must move."

Pressure Groups and Quoddy

FREQUENTLY Quoddy has been a political football revived in Maine before elections by public officeholders and seekers. All-American Quoddy

⁴ Eastport *Sentinel*, March 16, 1938. On July 7, 1936, Colonel Philip B. Fleming is reported to have estimated that International Quoddy could produce power for two mills per kilowatt hour.

⁵ Senate Document 41, April 7, 1941, *op. cit.*, page 37.

⁶ Eastport *Sentinel*, August 25, 1949. All direct quotations of individuals used in this article are taken from this paper.



Q "FREQUENTLY Quoddy has been a political football revived in Maine before elections by public officeholders and seekers. All-American Quoddy was generally recognized as 'pork barrel' legislation in many quarters, justifiable not on power costs but for work relief and social and experimental values."

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was generally recognized as "pork barrel" legislation in many quarters, justifiable not on power costs but for work relief and social and experimental values. While leaders of both political parties are now pushing international Quoddy, the majority of them have shifted to more solid ground—they want an international investigation to determine the economic feasibility and political desirability of the gigantic proposal.

Although a few Maine newspapers used to oppose All-American Quoddy, more recently they have been supporting the international investigation. Likewise, the FPC, perhaps almost caustically hostile to All-American Quoddy in 1934 and 1941, in its latest report seems to have a more conciliatory attitude towards the possibilities of international Quoddy in, say 1960.

Rumors, but little tangible evidence, have suggested some hostility to Quoddy by various Maine power companies. One of the surprises at the IJC hearings was the testimony of a representative of the Bangor Hydro Electric Company that his firm had no opposition to the proposed survey of the project. Actually the Maine power companies, because of certain sectional droughts, have had to ration power on recent occasions. And it is a matter of record that one of the great power companies at times has been forced to develop over 50 per cent of its power from steam auxiliaries.⁷ The Maine Public Utilities Commission in 1947 declared: "Now the demand for firm power has brought steam plants from

an auxiliary status to a firm position. Power is generally required from steam stations all of the year except a few weeks in the spring and at times up to half of the total energy is produced by these plants."⁸

Two pockets of opposition to the contemplated Quoddy development at present are the Power Survey Committee of the New England Council and certain fishing interests spearheaded by Connor Bros. of Charlotte county, New Brunswick. Over a period of years certain forces in the New England Council have been hostile to Quoddy. Its 1948 report, "Power in New England," offered no new evidence on Quoddy. It reported that there seems to be no evidence to indicate that the international project would be more promising than the American project in terms of cost of power; and concluded: "Certainly there is no economic justification for advocating expenditure on the Passamaquoddy project before a thorough engineering study is made."⁹ Quoddy proponents accept this conclusion, but argue that strong assertions that the international power would be cheap warrant investigation. Furthermore, it is alleged that the use of a loaded word "scheme" (the dictionary meaning of which is plot or intrigue) nine times in less than one page of the report devoted to tidal power is indicative of nonobjectivity in the report.

Canadian opposition to Quoddy has traditionally centered about the sardine

⁷ Circular letter to the stockholders of the Central Maine Power Company, Augusta, Maine, October 2, 1944. Signed by President W. B. Skelton.

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⁸ *Twelfth Biennial Report*, PUC, Maine, 1945-46, page 18.

⁹ *Power in New England*. Report of the Power Survey Committee of the New England Council. Boston, 1948, page 61.

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Advance Planning for Projects

"SOcial scientists and engineers who support economic and administrative planning stress the importance of factual information and the use of organized intelligence before wise national or regional policy can be determined. A thorough study of Quoddy costs is merely a step in the consummation of intelligent power policy for the United States and Canada."

fishing industry. Despite some evidence that the value of this industry has declined in recent years, testimony at the hearing estimated that the value of the fishing industry to Canada amounts to \$10,000,000. Its demise was predicted with the development of Quoddy.

Commissioner Stanley hit the crux of this situation by asking a witness two questions: "We wouldn't have hydroelectric power in the United States without millions of dollars of damage. You wouldn't object to developing something that will stop the bleeding of your population, the bringing in of new industries, new payrolls just because you may lose a few hundred thousand dollars? Do you agree that we should survey and if the advantages offset the disadvantages we should go ahead?" Note had been made that the respective governments would pay just compensation for property damaged in the process of construction.

The Washington County Chamber of Commerce has a committee headed by Arthur Unobskey currently studying the possibility of attracting new industries, the nature of which require large amounts of power. Several corresponding agencies in New Brunswick are working on the same problem. On December 8, 1949, Governor Frederick G. Payne and the Executive Council of Maine voted to make available to the Washington County Chamber of Commerce and the Maine Development Commission \$7,500 in the event of a favorable report by the IJC for promotion work and necessary appearances before congressional committees in Quoddy's behalf.

Quoddy in a New England Regional Power Setup

THE most recent report of the Federal Power Commission on the New England situation, made public by Senator Leverett Saltonstall last

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July, remarked that Congress has authorized no projects that include the development of hydroelectric power in New England, even though many potential multiple-purpose reservoir projects exist in this region. Quoddy was included in the FPC estimates "since it is feasible from an engineering standpoint and should therefore be considered as a potential source of power."¹⁰

The report, in almost complaining language, pointed to New England's hostility to multiple-purpose power projects. "It seems evident . . . that there is nothing the Federal government can do toward further development of the potential water power of New England until the people in the region are willing to permit development of the power potentialities of Federal multiple-purpose reservoir projects." Whereas the New England Council and other agencies have estimated New England's power potentiality largely in terms of single-purpose power developments, the FPC served notice that it is not interested in single-purpose projects. The commission also almost abhorred Maine's Fernald Law, which prohibits the transmission of hydroelectric power outside the state as "an obstacle to the widespread distribution and use of the potential water power of New England."

Quoddy, however, is perhaps the lone exception to the above contentions of the FPC. In the first place, if economically feasible, relatively little or no opposition exists to Quoddy. In fact, Washington county groups and the United States Senators and Representatives from Maine have been begging

Congress and the administration for Quoddy for almost twenty years. The Maine legislature in 1925 and the voters in a popular referendum not only created Dexter P. Cooper, Inc., but also gave this corporation the right to transmit power to other states as determined by the Maine Public Utilities Commission.¹¹

As enabling legislation for state administration of a federally constructed power project, the Maine legislature in 1939 created the Quoddy Authority Board and empowered it to sell Quoddy power within its own district and to outside states.¹² Those familiar with Maine's well-established public power policy recognize that the state made numerous concessions in an attempt to satisfy administration enabling legislation requirements. Although never used, this authority still has corporate existence for the operation of Quoddy dam in Maine.

THE only common ground between TVA and Quoddy is that they are, or would be, power plants. Whereas TVA went into the business of generating and selling power, Quoddy would presumably be an Army construction project but managed when completed by a state authority. Although many Federal-state relationships would still have to be worked out for the construction and administration of the tidal development, the Quoddy Authority Board of Maine now possesses certain constitutional rights.

Quoddy is vulnerable, however, in

¹¹ Maine, *Private and Special Laws*. 1925. Chap 111, pages 437-41.

¹² Maine, *Private and Special Laws*. 1939. Chap 71.

¹⁰ FPC memo, *supra*, page 6.

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the category of a multiple-purpose development with which the national government is primarily interested. In addition to power, it has national defense, recreational, experimental, and social aspects, but it is not connected with domestic water, irrigation, flood control, and navigation. Thus, primarily as a single-purpose power project, Quoddy differs from TVA and other great national projects.

As already suggested, Quoddy power would be an exception to the Fernald Law and could be sold in other states. With power now transmitted 300 miles at a profit and even greater distances possible by displacement, Massachusetts is very much interested in its construction.

Orville S. Poland, economic adviser to Governor Paul Dever of Massachusetts, pleaded for Quoddy "because it touches upon the foundation of our economy. We either must develop more electric power or we will lose our industrial supremacy." He alleged that New England industry pays \$176,000,000 more for the electric power it uses than if the same power had been purchased in the TVA area, and that helps to account for the migration of New England textile and shoe industries elsewhere.

Several recent studies show that power is no longer a fundamental factor in determining the location of industry.¹³ Now it can be transmitted distances so that industry may save on transportation costs for markets and raw materials. Except in a few cases

where power costs are of major importance, many industries figure their power costs from 2 to 4 per cent of the total cost of their manufactured products. In spite of this, however, cheap power is still of considerable significance in regional industrial competition. If cheaper power can reduce a corporation's manufacturing cost by only 1 or 2 per cent, that small amount may mean the difference between a going concern and a bankrupt company.

THE Federal Power Commission in 1941 reported that the New Hampshire, Vermont, central and eastern Massachusetts, and Rhode Island area obtained almost two-thirds of its energy from the Boston Edison Company and the New England Power Association from large steam-electric plants in Boston and Providence, and from hydroelectric plants on the Connecticut and Deerfield rivers. Steam-electric plants are reported to have produced 69.9 per cent of this energy.¹⁴ Another estimate is that the three southern New England states, with more convenient and cheaper access to coal imports, produce more than four-fifths of their electricity from coal and oil.¹⁵

The crux of the situation is that Massachusetts has been forced to develop more expensive marginal projects and to resort to the use of substi-

¹⁴ Senate Document 41, April 7, 1941, *op. cit.*, page 28.

¹⁵ E. W. Morehouse, "Some Problems of Power" in *New England's Prospect*, American Geographical Society. Special Publication No. 16 (New York, 1933). As of 1948 New England, exclusive of Maine, is 80 per cent dependent upon steam power. NEC report, *op. cit.*, page 67.

¹³ NEC report, *supra*; *Industrial Location and National Resources*, National Resources Planning Board. December, 1942; *Electric Power and Government Policy*, The Twentieth Century Fund (New York, 1948).

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tutes for hydroelectric power at times when the *saving* of coal and oil for more highly specialized purposes was important for war effort. Conservation is no longer a static policy of saving; it is a broad and dynamic term which requires the wise use of not only natural resources but all energy resources. Thus tidal power becomes more than a matter of energy costs—it is vital in a regional program for the conservation and wisest use of our energy resources.

This point of the highest possible use of the nation's energy resources was stressed by Mr. Justice Jackson not long ago in the Hope Natural Gas decision.¹⁰

In a somewhat different connection Commissioner Stanley remarked at the tidal power hearings that it might be advantageous to harness Quoddy even at a cost slightly in excess of going switchboard rates, because of the unlimited supply available. One might add that with the rising costs of coal and oil and the possibilities for mining and transportation strikes, resort may be necessary to the most dependable and most permanent source of power known—tidal power.

The Issue and Regional Planning

ROSCOE C. EMERY, in summarizing for the Washington County Chamber of Commerce the evidence

¹⁰ Federal Power Commission *v.* Hope Nat. Gas Co. (1944), 320 US 591, 659, 51 PUR NS 193. In its Twentieth Annual Report, page 79, the FPC in 1940 suggested the desirability of the use of natural gas in the best interests of the social economy.

presented to the IJC at the Eastport hearing, said the sole question at the moment "is whether tidal power as here proposed is sufficiently cheap to warrant construction and we submit that the time has come when that question should be answered once and for all."

Social scientists and engineers who support economic and administrative planning stress the importance of factual information and the use of organized intelligence before wise national or regional policy can be determined. A thorough study of Quoddy costs is merely a step in the consummation of intelligent power policy for the United States and Canada. It would be folly to sink huge sums of money into Bay of Fundy dams if the resulting power costs would be high. Such information, however, seems imperative. If Quoddy power is cheap, then the project has a "green light" for some future time. Or if Quoddy power is not worth while economically, such knowledge would be well worth the cost of investigation so that Quoddy can be buried and the power magnates made free to focus their attention on other sources of power whatever they may be.

The subject of power is so dynamic and its conditioning factors so interchangeable that detailed knowledge of international Quoddy would be valuable for present or future planners and national and international policy makers.

The marginal power projects of today may become the highly desirable ones for future generations.



The Problem of Replacement Cost and Tax Depreciation

During the present inflationary era all forms of industrial enterprise are experiencing an increasing difficulty in balancing the present plant depreciation allowance for taxation against the greatly increased cost of replacing worn-out or obsolete equipment. The problem suggests that the traditional standard of "original cost" in determining such depreciation and amortization allowances may no longer be quite realistic.

An exclusive staff interview with
THE HONORABLE HERBERT R. O'CONOR*
U. S. SENATOR FROM MARYLAND

REPPEAL or reduction of wartime excise taxes, especially those on communications, transportation, gas and electric appliances, and electrical energy, would greatly stimulate the utility industries, but, according to Senator Herbert R. O'Connor (Democrat, Maryland), there are other problems of equal or greater importance which should be resolved during the present session of Congress.

In an exclusive interview with a member of the PUBLIC UTILITIES FORTNIGHTLY staff, Senator O'Connor declared himself sympathetic to elimination or reduction of those excise levies which are deterrents to business.

"And," he continued, "there is no gainsaying that many of the excise taxes are very definite brakes upon the wheels of industry. However, I fear that in the clamor to get rid of these taxes, taxes that we are conscious of many times each week, Congress and business are overlooking a far more serious threat to our continued prosperity and industrial expansion. I refer to the rigidity of Bureau of Internal Revenue regulations with respect to depreciation and amortization allowances for replacement of plant and production facilities."

Original cost has long been a controversial standard of valuation with respect to the regulation of rates for public utilities. The conflict between the

*For personal note, see "Pages with the Editors."

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theories of so-called "prudent investment" and some recognition of replacement cost or cost to reproduce properties has echoed throughout most of the history of public utility rate regulation in the United States. But there is, during the present inflationary period, an equally pressing economic problem which stems from the same source. It is the question of computing allowance for depreciation or amortization, for taxation purposes, on the original cost of plant or equipment—as distinguished from the greatly increased cost of replacing such items.

POINTING out that depreciation is a basic cost, a cost on production—without which there could be no wares or services available for excise levies—Senator O'Connor declared that as the regulations of the Bureau of Internal Revenue with respect to amortization and depreciation allowances whittle down plant and production facilities and impede or halt replacements, we threaten the life of "the business goose that lays the golden prosperity and tax eggs."

And all business begins with production, not out at the level where the excise tax is collected, he added.

"It is my firm conviction," Senator O'Connor went on, "that one of the most important objectives to which Congress can address itself at this time in the interest of continued prosperity is the revision of government thinking with respect to amortization and depreciation allowances for expenditures for replacement and expansion of plant and equipment facilities. Otherwise, we may witness the slow death of the business goose that lays the golden prosperity and tax eggs."

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"The now thoroughly recognized and near-alarming lack of venture capital is doing enough to hamper business development, without the additional shackles which current Bureau of Internal Revenue depreciation regulations impose.

"More and more of my correspondence and discussions with executives from many lines of industry, regarding the trend for this year and beyond, clearly reveal the unfavorable effects government regulations have on the maintenance of our present high level of production, hence maintenance of continued prosperity and full employment.

"While all of them decry the heavy burden of taxation as a very definite hindrance to plans for expansion, they are not asking particularly for relief in this direction. What does concern them is what they describe as an 'unrealistic' government approach to the matter of allowances for depreciation and obsolescence and the writing off of urgently needed capital expenditures.

"LEADERS in business and industry stress the fact that in the tremendous effort for all-out production in the war years, plant and production facilities took a beating that strained them to the utmost, with resultant abnormal depreciation. Many of the resulting deficiencies have been corrected, but even without considering needed expansion to keep abreast of demand, much still remains to be done.

"The billions of dollars spent by industry for replacements of production facilities, worn and strained to their very limits under the pressure of war, demonstrate beyond any question of doubt that the present method of allow-

THE PROBLEM OF REPLACEMENT COST AND TAX DEPRECIATION

ing reserves for depreciation based upon initial cost of equipment and facilities has no realistic relationship to replacement or expansion costs of today.

"Industrial operators who have adhered strictly to Bureau of Internal Revenue requirements regarding depreciation reserves have found, to their alarm and dismay, that increased costs of construction and plant equipment render it next to impossible to replace worn-out machinery and facilities on the reserves which have been set aside on the basis of original costs.

"The plant that was built only ten years ago at a cost of \$10,000,000 will cost nearly double that amount to duplicate today. The concern, therefore, which has set aside only \$10,000,000 to replace those facilities, today finds that it has but three courses—curtail construction and new equipment purchases, dig deeply into earnings, or arrange new financing. And the last is increasingly difficult as venture capital

becomes more timid with each passing day.

"Faced, as many industries are, with the need for expansion to meet increased demand for their products or services, the higher cost situation creates almost a state of stagnation where, unless relief is given in the way of wider latitude in depreciating capital expenditures, the nation's industrial productivity will slow down to a pace that will bring something more severe than disinflation."

IN conclusion, Senator O'Connor reiterated the desirability of reducing or repealing those excise levies that retard consumption. "But," he emphasized, "production is the beginning, the very foundation of prosperity, so it is highly essential that the Congress give basic consideration to the problem of depreciation allowances in order that industry may stay in the high gear necessary to maintain an ever-expanding national economy."

"CERTAINLY none object to our keeping secret the mass of technical and engineering information involved in manufacture of materials, and the making of the atomic bomb itself. Does it make sense to hold back fundamental science?

"Science in America cannot prosper in the dark. We can proceed only at a snail's pace on the basis of whispered confidences. But this country is rapidly progressing toward magnificent accomplishments in many fields of fundamental science, and free interchange of results is its heart's blood. . . . The great danger of security of information is that it will be overdone and militate in the long run against the security of the country in a hazardous world.

"Fundamental science is essential to our industry, our economy, our whole social structure, our national strength, for it is from constant and vigorous fundamental research that there comes the knowledge which produces new applications, new implements, new industries."

—VANNEVAR BUSH,
President, Carnegie Institution
of Washington.



A 5-day Workweek for Business With 7-day Jobs

A public utility, by its very nature, serves seven days a week. Gas, electric, telephone, and transit—never have a holiday or a holyday or a feast day to the point of suspending operations.

By JOE R. ONG*

How can the 5-day workweek fit a business with 7-day jobs? How can every worker have two days off each week and, without losing time, have a regular Sunday off as a part of a 4-day week end every six weeks? This article will explain such a plan which has proved entirely successful in actual practice in the Cincinnati Street Railway Company.

The appeal of "Sunday off" or the opportunity to have a nice long week end for a fishing trip, a hunting trip, or just a leisurely auto jaunt with the family, without losing any pay time, is almost universal. There are exceptions, of course, but most men would

enjoy something like this. Their friends work in shops, mills, factories, warehouses, or offices on a 5-day week and have every Saturday and Sunday off.

Just because a man works for a utility company, or a business giving service 'round the clock seven days a week, must he be denied a week end free except at his own expense? Must this kind of a week end off be limited to just a few or can it be spread around among all the fellows holding down the 7-day jobs? The answer most men would like to get can be found in the plan described for the Cincinnati Company.

Moreover, in following this definite program a "Calendar of Off Days" can be drawn up for a year or more in ad-

*For personal note, see "Pages with the Editors."

A 5-DAY WORKWEEK FOR BUSINESS WITH 7-DAY JOBS

vance and a man can choose his vacation time with relation to his scheduled off days. It is surprising how farsighted some of them are and how helpful this off-day calendar is to them.

THERE is no penalty on management to adopt the method described. It involves no additional overtime payments. It makes for a more satisfied group of employees. A much higher proportion of the total labor group gets benefits than would be possible if they have the same days off each week and limit the choice week-end off days to a few high seniority men who would take them *every week*.

Usually not all the jobs in any industry are on a 7-day basis so that there will also be some 6-day jobs and some 5-day jobs. Of course, the 5-day jobs are a perfect setup for a 5-day workweek and present no problem at all. The most interesting feature of the plan described relates to the 7-day jobs.

This plan has been developed and successfully used for the local transit industry but may be adapted to other industries, which, because of manufacturing processes or the obligation of public service, require continuous 7-day operation.

First, the payroll week must be defined and definitely related to the calen-



FIGURE 1

PLAN FOR ROTATING DAYS OFF FOR 7-DAY JOBS

OFF-DAY AND SKIPPER JOB-WEEK CALENDAR									
Skipper Job Week	1949	Sun	Mon	Tue	Wed	Thu	Fri	Sat	1949
U	Jan. Off	2 A	3 A-B	4 B-C	5 C-D	6 D-E	7 E-F	8 F	Jan. Off
V	Jan. Off	9 F	10 F-A	11 A-B	12 B-C	13 C-D	14 D-E	15 E	Jan. Off
W	Jan. Off	16 E	17 E-F	18 F-A	19 A-B	20 B-C	21 C-D	22 D	Jan. Off
X	Jan. Off	23 D	24 D-E	25 E-F	26 F-A	27 A-B	28 B-C	29 C	Jan. Off
Y	Jan. Off	30 C	31 C-D	1 D-E	2 E-F	3 F-A	4 A-B	5 B	Feb. Off
Z	Feb. Off	6 B	7 B-C	8 C-D	9 D-E	10 E-F	11 F-A	12 A	Feb. Off
U	Feb. Off	13 A	14 A-B	15 B-C	16 C-D	17 D-E	18 E-F	19 F	Feb. Off
V	Feb. Off	20 F	21 F-A	22 A-B	23 B-C	24 C-D	25 D-E	26 E	Feb. Off
W	Feb. Off	27 E	28 E-F	1 F-A	2 A-B	3 B-C	4 C-D	5 D	Mar. Off

Note that the days off for every group are always the same on Skipper Job Week of the same letter; i.e., "U" week of February 13th is like "U" week of January 2nd, "V" week of February 20th is like "V" week of January 9th, etc.

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dar week. If we let the payroll week and the calendar week be identical, then our plan will give most of the workers a 4-day week end off, starting on Friday, once every six weeks. If the payroll week must end on Friday then the 4-day week end every six weeks will start on Thursday and end on Sunday. The reason is obvious; we must always have two off days in every payroll week to avoid overtime.

SECOND, the workers on the 7-day jobs must take their days off according to a rotating pattern; thus: off Monday and Tuesday this week, off Tuesday and Wednesday next week, off Wednesday and Thursday of the

week after that and so on, until in the fifth week the off days are Friday and Saturday and in the sixth week the off days are Sunday and Monday—which puts four off days together over the week end. The seventh week is like the first, the eighth like the second, etc.

Third, the jobs must be identified by number and each job number must be assigned to an off-day group by letter: A, B, C, D, or E. If job assignments are selected by seniority it must be understood that the job number carries with it a definite off-day group letter, so that "regular" workers can always check their days off by the calendar and substitute workers may be "regular" in that their jobs may be definite ac-



FIGURE 2
SAMPLE JOB LIST OF "REGULAR" JOBS

Job No.	Shift	Description	Pay Hours	Off Days	Employee's Name to be shown opposite job assigned or selected
21	1st	Opr, Machine 42	8.0	Group D	This is a Sample of Jobs with <u>7-days work per week</u>
22	1st	Opr, Machine 43	8.0	" B	
23	1st	Opr, Machine 51	8.0	" A	
24	1st	Opr, Machine 52	8.0	" C	
25	1st	Opr, Machine 60	8.0	" E	
28	1st	Buffer	8.0	Sun-Mon	This is a Sample of Jobs with <u>6-days work per week</u> (No Sunday work)
29	2nd	Polisher	8.0	Sun-Tue	
30	2nd	Classifier	8.0	Sun-Wed	
31	1st	Shipper	8.5	Sun-Thu	
32	1st	Shipper	8.5	Sun-Fri	
33	1st	Inspector	8.0	Sat-Sun	Jobs with only 5 days work per week. No Saturday or Sunday work.
34	2nd	Inspector	8.0	Sat-Sun	

A 5-DAY WORKWEEK FOR BUSINESS WITH 7-DAY JOBS

According to regular patterns over a 6-week cycle. These substitute or relief workers may be designated by the term "skippers," since they skip around from one job to another (after a defi-

nite pattern) and their work will therefore be termed a "skipper job." Sometimes a "skipper job" is more desirable than other available jobs and may be selected by a man with high seniority.



FIGURE 3

PATTERN FOR TWO SKIPPER JOBS WITH EACH GROUP OF FIVE 7-DAY JOBS

	SUN.	MON.	TUES.	WED.	THU.	FRI.	SAT.
SKIPPER JOB WEEK	Type "R" Skipper Relieves A Job In Group Shown Below						
U	A	B	B	D	D	-	-
V	-	-	B	B	D	D	E
W	E	-	-	B	B	D	D
X	D	D	-	-	B	B	C
Y	C	D	D	-	-	B	B
Z	B	B	D	D	-	-	A
SKIPPER JOB WEEK	Type "S" Skipper Relieves A Job In Group Shown Below						
U	-	A	C	C	E	E	-
V	-	A	A	C	C	E	-
W	-	E	A	A	C	C	-
X	-	E	E	A	A	C	-
Y	-	C	E	E	A	A	-
Z	-	C	C	E	E	A	-

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In order definitely to identify the off days and the work done by the skippers we make up what we call the "Off-day and Skipper Job Week Calendar." Each payroll week is identified by a letter; U, V, W, X, Y, and Z, followed by another cycle of U, V, W, X, etc. Figure 1, page 345, shows a portion of such a calendar, where the payroll week and the calendar week are identical.

For example, the week beginning January 2, 1949, is designated as "Skipper Job Week 'U,'" and on that week (and, indeed every "U" week) the men holding jobs in "B" group are off Monday and Tuesday; those in "C" group are off Tuesday and Wednesday; those in "D" group are off Wednesday and Thursday, etc. The week beginning January 9th is designated as "Skipper Job Week 'V,'" and in that week the men in "B" group are off Tuesday and Wednesday and those in "C" group are off Wednesday and Thursday, etc. Each successive week the off days drop back one day until each group reaches the magic week end. Note that on "Skipper Job Week 'V'" the men in "E" group are off Friday and Saturday and on "Skipper Job Week 'W'" this "E" group is off Sunday and Monday, so that they have a 4-day week end, yet they have five days work in every payroll week. In this case the payroll week is the same as the calendar week.

By following through with any one of the A, B, C, D, or E groups from the calendar (Figure 1) it will be evident that they all follow the same kind of a definite pattern with a 4-day week end off every six weeks. Only five groups are represented in the "regular" jobs (A, B, C, D, and E) but the sixth or

"F" group, shown on the calendar, is made up of a part of the skipper jobs which rotate their off days just like a regular job.

The next step is to list all the jobs and number them together with sufficient description of the work, shift time, and pay hours so that the worker may make a prompt, intelligent selection of the job of his choice. This list will show the off-day group applying to each job. This must be fixed before jobs are selected or assigned. Only in this way can the pattern for the skipper jobs be set up for choosing at the same time as the regular jobs.

FIGURE 2 (page 346) shows a sample of such a job list, although it has been rearranged and curtailed to show only one group of 7-day jobs, one group of 6-day jobs, and one group of 5-day jobs. It may be applied to any multiple of this number or fractional parts by slight modification. Note that the off-day group letters on the 7-day jobs have been deliberately scrambled to indicate that they do not have to follow in order. Sometimes it may be necessary for a skipper man to relieve jobs on different shifts on different days and one combination may be better than another when the jobs are thrown into the pattern of Figure 3 (page 347).

Primarily we are concerned with the 7-day-a-week jobs to be manned by employees who are not to work more than five days in any payroll week. Let us therefore take five of these 7-day jobs which will total thirty-five man days per week. We will recast them into seven 5-day jobs by following a fixed 6-week pattern that will correspond to the "Skipper Job Week Calen-

A 5-DAY WORKWEEK FOR BUSINESS WITH 7-DAY JOBS

dar" shown in Figure 1. For each five "regular" jobs there will be two "skipper" jobs. This pattern is shown in Figure 3.

The two actual "skipper" jobs to be made from "regular" job numbers 21 to 25, inclusive (Figure 2), are determined thus: In the pattern (Figure 3) substitute 21 for D wherever it appears, 22 for B, 23 for A, 24 for C, and 25

for E. The substitution of these numbers in Figure 3 produces Figure 4 where we have one "R" type Skipper Job No. 501 and one "S" type Skipper Job No. 502. There seems to be no other way further to simplify this than shown in Figure 4 which must be set up in detail for a 6-week cycle for *every pair* of skipper jobs of these two types. The cycle repeats according to the Skip-



FIGURE 4

SAMPLE OF TWO SKIPPER JOBS
Made Up of the Off Days of Five 7-day Jobs Shown in Figure 2

Skipper Job No.	Skipper Job Week	SUN	MON	TUE	WED	THU	FRI	SAT
501	U	23	22	22	21	21	off	off
	V	off	off	22	22	21	21	25
	W	25	off	off	22	22	21	21
	X	21	21	off	off	22	22	24
	Y	24	21	21	off	off	22	22
	Z	22	22	21	21	off	off	23
502	U	off	23	24	24	25	25	off
	V	off	23	23	24	24	25	off
	W	off	25	23	23	24	24	off
	X	off	25	25	23	23	24	off
	Y	off	24	25	25	23	23	off
	Z	off	24	24	25	25	23	off
503	every week	off	28	29	30	31	32	off

NOTE: Skipper Job 503 is the same every week made up of the other off day of each of the five 6-day jobs shown in Figure 2.

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per Job Week Calendar (Figure 1).

NOTE that all the work in each group of five regular jobs and two skipper jobs stands together as a unit, and is not mixed up with any work in any other group. The plan may therefore be applied to all types of work (skilled, semiskilled, or unskilled) by blocking it out in groups of five jobs each, suitable for handling by two "skippers."

The first impression may be that this is very complicated and difficult for many workers to understand. In actual practice it does not prove to be that at all.

The key is the "Off-day and Skipper Job Week Calendar," as shown in Figure 1.

Suppose a man comes back from a vacation, sick leave, or any other absence and reports on Tuesday, January 11, 1949, that he is ready to go to work on Wednesday, January 12th. The first thing he does is to check to see what job number he holds and the off-day group into which that job falls. This he gets from the Job Assignment Sheet (Figure 2). Suppose he holds Job 22 which is in Group B. He refers to the "Off-day and Skipper Job Week Calendar" (Figure 1) and sees that Group B is off on January 12th so he does not come to work until January 13th.

Now let us suppose a man holding Skipper Job 501 (Figure 4) wants to know what he is to do under similar circumstances. He comes in on January 11th and is ready to go to work on January 12th. He looks at the calendar (Figure 1) and sees that January 12th is in Skipper Job Week "V." He next

turns to his own job assignment (Figure 4) and finds that on Wednesday of "V" week Skipper Job No. 501 does the work of Job 22. He then refers to the regular Job Assignment Sheet (Figure 2) to find out what Job 22 does and that is his work for Wednesday, January 12th. The next day he takes Job 21, etc., according to his assignment. (Figure 4.)

THERE are five 6-day jobs (Nos. 28 to 32, inclusive) shown in Figure 2. These have no work on Sundays and therefore have to have one other off day each week. In order to make a skipper job they cannot all have two consecutive days off so their off days are arranged as shown in Figure 2. The work of those jobs on the off days of the regular men is then taken by a man holding Skipper Job No. 503 as shown at the lower part of Figure 4. That skipper has every Saturday and Sunday off. The regular men holding Jobs 29, 30, 31, and 32 do not have two consecutive days off, but they do have every Sunday off which is some compensation and there are men who rather like to break up the week by an off day on a weekday.

Data of the type shown in Figures 1, 2, and 4 are posted for reference by all workers and for use as described herein, but the table shown in Figure 3 is merely the tool of the work schedule department used in the preparation of Figure 4.

One other point is important. Any reassignment of jobs should be put into effect on the first day of the payroll week in order to insure that everyone will have full five days of work and be sure to have two days off each week to avoid the payment of overtime.



The World Power Conference

In 1936 the third World Power Conference was held in this country. In 1950 the fourth World Power Conference convenes in London July 10th to 15th. Comparison of the international settings for both meetings, with special notice of the problems created by current socialistic trends.

By J. A. WHITLOW*

THE World Power Conference is international in scope, and is attended by engineers and scientists from practically all civilized nations. Heretofore there have been but three sessions, the last one being in 1936. When the time arrived for the next meeting the whole world was engulfed in a total war. So now, in 1950, we will see the fourth World Power Conference convening in London and, according to custom, the program is being arranged by a British committee.

This conference was arranged and was operated at its first two sessions, entirely for the discussion of the engineering, scientific, and technical aspects of power in its various phases, steam, electric, Diesel, hydro, mechanical, etc., and it is reasonable to assume that the 1950 program will bear more or less heavily on atomic power.

In 1936 the third World Power Conference was held in this country and according to custom was sponsored by the host government. In 1936 a Federal administration, eager to promote participation of the government in the electric power field, was firmly established in Washington. It was noted that the arrangement of the program took on a rather different tone from that prevailing during the earlier sessions. Harold Ickes, as Secretary of the Interior, and Morris L. Cooke, who then headed up the Rural Electrification Administration, were in charge of arrangements. True, it was definitely stated that politics was taboo, and it was understood that the meeting was to be held in the interest of science. Yet, the advocates in this country of public power found opportunities which were not overlooked to develop their doctrine of public ownership. At times, it almost appeared as if the meeting had

*For personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

been called to endorse Federal control of utilities, to criticize holding companies, and to promote the establishment of large government power projects to compete with private industry.

AT that time government agencies in the United States were generating less than 10 per cent of the nation's electric power for public sale. But their representatives and supporters took up the greater part of the discussion allotted for American spokesmen and they made 90 per cent of the noise and dominated half the meeting. The late Mayor La Guardia of New York made what one critical editor referred to as "a bombastic tirade," caustically condemning the heads of the private utility industry. Commissioner of utilities in New York city, M. P. Davidson, gave an address in similar tone in which he belittled state commissions and exalted government ownership and competition.

It is interesting to note in passing that although the 1950 conference is to be held in socialist Britain, the committee in charge has decided to revert to the original purpose of the conference, and abstain from politics. Whatever the reason, this decision was not greeted with enthusiasm by American supporters of public power expansion. This includes, apparently, Morris L. Cooke, who had a leading part in the arrangement and conduct of the 1936 World Power Conference at Washington. In the magazine *Public Power* for December, 1949, Mr. Cooke wrote a 2-page article expressing his disappointment that the British committee has decided "to revert to the original scheme of things and to treat power wholly from the 'engineering and economic

viewpoints as distinct from the administrative and political,' thus excluding entirely the social viewpoint from which the peoples of the world have so much to gain." He reminded his readers that "the committee in charge reserves the right to edit out of the papers submitted anything deemed to be out of harmony with the announced purpose of the meeting."

Possibly it was the experience of the 1936 conference, with its display of controversial political coloration, that led the British committee to adopt this policy. It could be, of course, that the British committeemen were not too anxious for any international spotlight on British socialistic experience in the electric power field at this time. But it seems more creditable that they just did not care for the total eclipse of scientific interest which might ensue if the program were to drift into a futile ideological debate, featured with emotional overtones and political name calling. There was certainly enough of that in Washington in 1936.

IN any event, the 1950 conference seems to be keyed to a sincere desire to have the program adhere to the original scientific purpose. Scientists should get no such cause for annoyance from petty political squabbling at the London meeting as to tempt them to consider the abandonment of this great undertaking in unfortunate discord.

That such a result did not follow the Washington conference may be more traceable to the resigned coldness with which the foreign delegates received the tiresome tirades, and the dignity with which those representing American industry responded, than any reserve or toleration on the part of the

THE WORLD POWER CONFERENCE



Back to First Principles

"IT is interesting to note in passing that although the 1950 World Power conference is to be held in socialist Britain, the committee in charge has decided to revert to the original purpose of the conference, and abstain from politics. Whatever the reason, this decision was not greeted with enthusiasm by American supporters of public power expansion."

"hosts." The delegates numbered between 2,500 and 3,000. They came from 52 nations to attend this 6-day conference.

Some of them spent thousands of dollars in the interest of the advancement of science. They were not interested in the state of our domestic lives. Some expressed surprise at the situation, causing one business publication to remark "only in this country [the United States] does there seem to be a heated political debate and fight between advocates of public and private ownership." It commented on "the harmony and effectiveness abroad without the antagonism that rules here."

SINCE public ownership enthusiasts have brought this subject up again, perhaps it might be appropriate to recall the 1936 testimony submitted by the representatives of other nations.

John Dalton, manager of County of London's electric supply, referred to "the tirade we have just heard . . . Let

us by all means in our power keep the politicians away from this industry of ours." One of his countrymen explained that the British grid was not (then) publicly owned, but was a co-operative plan of many privately owned companies, and had reduced excess plant capacity from 83 per cent to 50 per cent and would bring still further reduction. Dr. Charles Merz, "father of the English grid," said interconnections in this country already had accomplished the same thing.

Mr. Deutsch, of Belgium, said all the world admired and applauded the United States for its accomplishments under private management.

G. F. Lemaitre, of Switzerland, said 98 per cent of his country's electricity came from private companies, and thus had made possible their astounding record in electrification.

Guiseppe Cenzato, of Italy, said 85 per cent of Italy's power supply came from nine companies, and his government recognized private initiative, and

PUBLIC UTILITIES FORTNIGHTLY

subjected municipal plants to the same regulation as private utilities.

The Austrian representative said his country had tried socialization of power resources, but had turned operation back to private initiative.

In The Netherlands only one province had any municipal electric power.

Eduardo Salazar, of Ecuador, said it is best to let private capital develop electrical supply.

In Sweden power resources had been developed by joint action of state, cities, and private industry acting in harmony. State plants then numbered 30 per cent, municipal 10 per cent, and privately owned 60 per cent.

Dr. Krecke, of Germany, said the Germans considered the duty of the government was to supervise and regulate and not to go into business itself. "We look on private initiative as the stimulating and progressive element in every line of business."

M. Malegarie of France said they had created the Superior Board of Electricity, whose purpose was to encourage the "proper function of the initiative of private enterprise."

The speaker for Norway said, "Industry and trade have been left to their own initiative for the most part."

The representative from Chile said,

"The most efficient means of realizing the objective is through centralized, independent, and technical organization. Every political, commercial, and local influence should be kept away."

Hungary reported state grants for water-power sites, because of injuries resulting from the war.

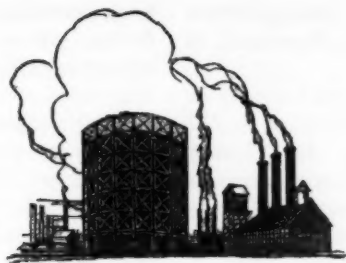
OTHER statements of like nature were made by other delegates. So the British committee has this experience to guide it. In conforming to the original purpose of the World Power Conference it also is conforming to the wishes of the people who make up the conference. It is only to be expected that soft-pedaling the public-private controversy (which is, after all, essentially a domestic affair) for the sake of really constructive scientific and technical discussion will not please the zealots of Socialism. Some folks will belittle any meeting unless they have a prominent place on the program. Perhaps they should hold their own conference where the expression of ideas may be uninhibited. That, too, would be an interesting meeting, but for other reasons.

When blood red meets parlor pink, the result can be pretty nearly purple.

"THE time has come to turn the government around and set its feet on the path leading away from business intervention and back to its constitutional function of protecting the lives and property of the people.

"Over the past decade and a half we have been witnesses to a calculated plan to inject government more and more into our everyday lives. By appealing craftily to various groups, holding out alluring bait that tempts self-interest, bureaucracy has sold industry more and more the idea of accepting a little more subsidy."

—C. ARMEL NUTTER,
President, Philadelphia Mortgage
Bankers Association.



What Else Is Gas Good for?

Although synthetic chemicals are still a small part of the natural gas industry's business, the annual value of crude products from petroleum and natural gas operations in the United States has reached nine figures and is still going strong.

By T. N. SANDIFER*

THE largest output of tar on record, 1,022,000,000 gallons, was recovered from all sources in this country in 1948. And, according to the Tariff Commission, this record was due to the increase in consumption of natural gas during the year. Of the total quantity of tar recovered, 269,000,000 gallons was water-gas and oil-gas tar, which compares to 252,000,000 gallons in the preceding year.

These statistics are cited here to point up further a trend first emphasized in the Federal Power Commission's report of its investigation of the natural gas industry.

At that time, the commission heard considerable testimony by state authorities on the potentialities of natural gas in the future industrial development of their respective areas. Some witnesses

used these prospects as arguments against the further and rapidly mounting export of what they feared was a fast-vanishing natural resource of their states.

Whatever these views were, data by the Tariff Commission dealing with U.S. production of synthetic chemicals, recently issued for 1948, show the gas industry in a major rôle.

The combined output of all synthetic organic chemicals and their related raw materials, in 1948, was 41.6 billion pounds, 9.3 per cent greater than in 1947. The output of crude products from natural gas and petroleum reached 3.9 billion pounds, which was 25 per cent greater than in the previous year.

The figures are striking in the light of the observation in the Smith-Wimberly report following FPC's natural gas investigation, that, on the basis of 1945 figures, "it is apparent that the

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utilization of gas for these purposes (noncoal tar organic chemicals) is relatively small."

The figures now issued appear to confirm the later conclusion in the Smith-Wimberly report that "Today, the noncoal-tar synthetics organic chemicals branch indicates the beginning of a growth with its peak rate still in the indefinite future."

THE development has been followed with practical interest abroad, where synthetics are a natural resort in the absence of certain other resources. From this and other stimulation, a number of plants are either about ready to begin operations, or are under construction in the United Kingdom, France, Germany, and The Netherlands. In the absence of natural gas, the plants will use petroleum gases, it is understood, but the two basic materials are frequently hard to distinguish in the eventual statistics of production.

The market in the United States derives from the fact that chemicals enter almost every phase of industry; it might almost be said that the measure of a country's industrial activity lies in the industrial demand for chemicals. Cheap and plentiful chemical materials are vital to industry. In its production of the crude and intermediate materials for synthetic chemicals, the gas industry is obviously forging ahead at a rate easily measured since the furor of the FPC survey.

In that exploration, the almost unlimited kinds of chemical reactions and susceptibilities in natural gas were widely discussed by technical witnesses. Today, the synthetic organic chemicals industry, which has wide ramifica-

tions extending into the natural gas industry, where they are not in fact synonymous, has probably at least 10,000 technically trained workers.

In this phase of its operations, the natural gas industry is apparently on a wave generated in the recent war. Just as World War I saw a concentration of interest in coal-tar derivative chemicals, so did World War II result in accelerating developments that had their beginnings in the mid-1930's. Synthetic rubber, which had been just a term in this country until the Japanese cut off the natural rubber supply of the world, became a crucial war product.

This stimulated demand for carbon black, still a major outlet of natural gas synthetics, but it also led to intensified pressure on materials for other synthetics, some of which had been merely experimental until then.

So, today, while the public in general views natural gas as a source of winter heat or fuel for cooking meals, and the majority of industry users treat it as a convenient fuel, there is a body of opinion that sees gas in the light of a semiprecious raw material.

From the public angle, the end result to be looked for is a stage of synthetic chemicals manufacture, using natural gas, where the rate to the fuel user can be shaved in relation to the profit from sale of these chemical crudes to industry. This could give the natural gas industry a new status before the regulatory bodies of the nation; nor is this a farfetched eventuality. The packing industry spent a good many millions teaching the public that it enjoyed cheaper meat because the packer could sell everything but the squeal at the stockyards.

WHAT ELSE IS GAS GOOD FOR?

A gas consumer who never heard of xylene, naphthalene, or toluene, not to mention some others, will not be too critical of an industry that, because it produces these materials, is able to charge him lower rates for his gas.

The relationship is easily seen, however, in the fact that just as production of coal tar reflects the demand for steel, production of water-gas or oil-gas tar reflects the consumption of manufactured gas for household and industrial use. Plants owned by city gas companies—in other words, public utilities—accounted for water-gas or oil-gas tar in 1948 amounting to 39,943,000 gallons, compared with 40,283,000 gallons in 1947; plants not owned by city gas companies, on the other hand, showed a rise in 1948 output to 698,812,000 gallons from 695,892,000 in 1947. These tars are, of course, distilled by other industries also, using gas or oil.

Incidentally, substantial quantities of these tars are consumed as fuels themselves. In this connection, and pertinent to charges heard during the FPC investigation, that gas was being diverted from such valuable uses as the new chemicals manufacture, production of the synthetics in certain instances uses gas that otherwise would be lost or wasted.

CARBON black companies find it advantageous to seek out gas supplies in locations where the gas cannot be economically piped to more distant markets, or for other reasons would be lost to other users. Their use of this gas gives them a cheaper raw material supply, and conserves a resource that otherwise might have gone the way of a lot of helium before a use was found for it. This is true also of so-called "sour gas" or was until new methods of treating this gas for general use were



Organic chemicals: United States production and sales of crude products from petroleum and natural gas for chemical conversion, 1948

[Listed below are the crude products from petroleum and natural gas for chemical conversion for which any reported data on production or sales may be published.]

Product	Production	Quantity	Sales	Unit Value
	1,000 Pounds	1,000 Pounds	1,000 Dollars Per Pound	
Grand total	3,914,307	2,997,630	123,087	\$0.04
AROMATICS AND NAPHTHENES				
Total	892,107	687,272	25,983	.04
Naphthenic acid	25,420	8,243	736	.09
Toluene, all grades	358,849	301,319	8,910	.03
Xylene, all grades	382,696	257,143	6,691	.03
All other aromatics	125,142	120,567	9,646	.08
ALIPHATIC HYDROCARBONS				
Total	3,022,200	2,310,358	97,104	.04
C ₂ hydrocarbons: Ethylene	383,448	149,072	9,138	.06
C ₃ hydrocarbons: Propane and propylene	713,629	497,281	8,601	.02
C ₄ hydrocarbons, total	1,656,689	1,413,156	74,415	.05
1, 3-Butadiene, grade for rubber (Elastomers) ..	660,915	654,613	52,665	.08
1-Butene and 2-butene fraction	820,439	652,979	18,890	.03
All other	175,335	105,564	2,860	.03
C ₅ hydrocarbons	12,971	6,723	505	.08
C ₆ hydrocarbons: Di-isobutylene	9,225	8,174	378	.05
All other aliphatic hydrocarbons	246,238	235,952	4,067	.02

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developed. "Casing-head gas" also has been obtained at economical rates by carbon black producers, where, in the past, large quantities had to be flared for lack of suitable pipe-line or other outlets.

The carbon black industry is usually thought of first in connection with synthetic chemicals output using natural gas. Such manufacture does account for a larger part of natural gas consumption industrially than any other except field use; in 1946, 478 billion cubic feet. The manufacture of carbon black has tended to follow the lines of newer gas developments, migrating from the earlier Appalachian area as more intensive use of gas developed there, with the resulting higher prices.

The 1946 exports of carbon black, 271,000,000 pounds, represented 111 billion cubic feet of natural gas, on the basis of average yields of 2.44 pounds per one thousand cubic feet that year.

But the gas industry has expanded into numerous other fields since then. The Tariff Commission reports that where, in former years, many so-called cyclic intermediates were derived principally from destructive distillation of coal, increasing amounts have now been coming from crudes obtained from natural gas or petroleum. Their relationship to other chemicals demand is seen in the fact that cyclic intermediates' chief uses are in the manufacture of still further advanced organic chemicals—dyes, medicinals, explosives, plastics, resin materials, synthetic rubbers, even perfumes and flavor materials.

THE value of crude products from petroleum and natural gas in 1948, the latest reported, was \$123,000,000

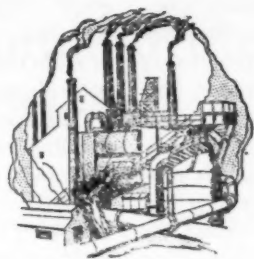
compared with \$118,000,000 the year before. The quantity of such products rose to 9,998,000,000 pounds in 1947, but dropped to 9,470,000,000 last year, despite the higher value dollarwise. Sales in 1948, represented by the \$123,000,000 cited above, totaled 3 billion pounds.

The output of a subgroup in this field, comprising aromatic and naphthenic products, rose about 40 per cent last year compared with 1947.

Relatively, synthetic chemicals are still a small part of the natural gas industry's business. Some ethylene and butadiene is sold, and considerable quantities of basic tar crudes. But, in general, the trend is for petroleum and natural gas companies to seek outlets through major chemical producers, and a number of such arrangements are now in effect, it is reported. This combines the production of natural materials with a producer of the finished or semifinished chemical product, who, in turn, has the sales outlets and the marketing machinery for disposing of these manufactures. Some gas or petroleum companies, or combinations of the two, of course, have chemical facilities of their own.

An idea of the range of chemicals production from petroleum and natural gas is indicated by the table, page 357, detailing the crude products from those materials, in 1948.

In connection with this list of products, it is perhaps significant that natural gas exports, as such, from pre-war 1933 down through 1946, represented only about 8 per cent of the volume of natural gas consumed in manufacture of carbon black exported in the same period. In the latter year, in fact, exports of carbon black, in



Gas—A Semiprecious Raw Material

"... while the public in general views natural gas as a source of winter heat or fuel for cooking meals, and the majority of industry users treat it as a convenient fuel, there is a body of opinion that sees gas in the light of a semiprecious raw material. From the public angle, the end result to be looked for is a stage of synthetic chemicals manufacture, using natural gas, where the rate to the fuel user can be shaved in relation to the profit from sale of these chemical crudes to industry."

terms of natural gas used in its production, were more than six times the volume of natural gas exported.

EXCLUSIVE of use of natural gas in carbon black, figures up to 1945 indicate that less than 2 per cent of natural gas was being used as chemical raw material, as distinguished from the very considerable amount used as fuel in chemicals and related manufacture. This figure may not be as significant as it appears, taken by itself. During the war years, as a great many volumes of war investigation testimony recall, one of the critical problems was getting enough gas for carbon black, or other essential war uses. It would take detailed analysis of the situation to indicate whether the small amount entering chemicals manufacture at the time was or was not due to more urgent demand.

Under normal conditions, and in view of the mounting interest in synthetic chemicals manufacture, the demand on natural gas in this connection is necessarily speculative. The research staffs referred to are busy ferreting out new possibilities and applications. Some development, just as carbon black did, may impinge on natural gas with unexpected force. Organic chemicals of noncoal-tar origin, as yet, are considered to be in just an early stage. In some cases, also, the market demand for such chemicals is at present limited.

Natural gas, as a raw material for chemicals use, also has competition from other, firmly entrenched materials, some of which are by-products of various industrial operations. This competitive phase is subject to fluctuations. The instability of coal production, due to the incessant strike menace

PUBLIC UTILITIES FORTNIGHTLY

in that industry, is one such factor.

The effects of these arbitrary interruptions to the coal supply are felt more quickly in coal chemicals production than probably any other industry. Immediately, the very first day of the steel strike, for illustration, approximately 70 per cent of the coal chemicals production stopped. As of November 1st, only a small number of coke ovens were reported still operating, and these were on a slow schedule.

Hence, the customers for aromatic solvents normally derived from coal tar turned to petroleum toluol and xylol, producers of which were reportedly unable to meet all the orders they had, but, incidentally, held their prices at former levels.

FORMERLY, and apart from the coal or steel strike effects, crude light oil, a primary product of coal carbonization, supplied virtually all benzol, toluol, xylol, and solvent naphtha. In a large measure, according to current figures, these still come from coal, but petroleum is fast becoming an important source of both toluol and xylol. Since the statistics on petroleum and natural gas are frequently interrelated, this would seem to be an important indication as to future developments.

In 1948, the petroleum industry furnished 60 per cent of toluol and 85 per cent of the nation's xylol supply. Production of toluol and xylol is an important phase of the aviation gasoline industry.

With respect to natural gas itself, however, and without reference to such specific situations as this, it was anticipated by some authorities, on the basis

of earlier figures, that even with a very great expansion of demand from chemicals production, such use would provide only a minor fraction of total natural gas consumption.

These authorities point out that expanding requirements can be met by selective use of gas, with an eye to the desired components. None of these developments takes into account the budding field of synthetic liquid fuels. Here, again, the most widely studied German process used coal. Probably in this country, the primary dependence will come to be cheaper coals, particularly as interest in the possibilities stems in part from the prospect that areas having cheap coals may benefit. This latter possibility has stimulated congressional support of the experiments.

However, experimental work in this country on the original German process has delved into use of natural gas, and some major improvements which open the field to this material have followed. Since these processes contemplate the use of residue gas, principally methane, there are interesting potentialities, it is reported.

Where, only a few years ago, conversion of dry gas to liquid fuel was regarded as uneconomical, due to competition from petroleum, private industry is getting into such production. The market limitations which some authorities see, with respect to use of natural gas for production of some synthetic chemicals, do not apply to possible conversion of the residue gas mentioned into liquid fuel. Until the plans now getting into the field have had time to cover more ground, however, this is a speculative outlook.

Washington and the Utilities



Taxes Continue in Spotlight

OF the numerous daily hearings on Capitol Hill, none is drawing more public attention or a greater number of witnesses than the House Ways and Means Committee's public sessions on the President's tax program. By far the greatest number of witnesses are from the ranks of small businessmen as represented by their national associations. They seem unanimous in two demands—repeal of excise levies at retail levels, and amendment of the internal revenue code to tax the profits of cooperatives and presently tax-exempt foundations.

Representatives of the gas and oil industry have vigorously opposed any reduction in present depletion allowances, pointing out that these allowances enable the industry to conduct exploration for new petroleum and gas reserves. Giving support to industry views, Congressmen from the oil-producing states have flatly declared depletion allowances will be retained at their present levels.

Although more than 50 per cent of the revenue realized from excise taxes on telephone tolls comes from the 15 per cent charge on local service, there has been little organized protest against the administration's proposal that this tax be retained while recommending that the 25 per cent tax on long-distance and telegraph tolls be cut from 25 to 15 per cent. However, Representatives Herman P. Eberharter (Democrat, Pennsylvania), John A. Carroll (Democrat, Colorado), and John D. Dingell (Democrat, Michigan) closely quizzed Treasury Secretary John W. Snyder on the administration's "failure" to recommend any reduction in the tax on local telephone services. Representatives Eberharter and Carroll

plainly indicated they will put up a fight within the committee to halve this tax, while Representative Dingell, long-time opponent of all excises, especially those which "hit the little fellow," would eliminate the tax on local telephone services.

REPRESENTATIVES of the lamp division of General Electric, and the Consolidated Edison Company of New York, presented forceful arguments for repeal of excise taxes on electric light bulbs, and the 3½ per cent excise tax on electrical energy.

Estimating that the excise tax paid by its lamp division in a single year totaled only \$4,850,000, General Electric's witness demonstrated that it had the expense of recording 21,600 excise tax collections averaging \$224.20 each from 1,800 wholesalers, who, in addition to making and recording the 21,600 payments to GE, had the expense of recording 1,800,000 excise tax collections averaging \$2.69 each from 150,000 retailers who, in addition to recording these 1,800,000 payments to the wholesalers, had the expense of separately recording 68,300,000 tax collections from 19,800,000 home consumers who handed the retail merchants an average of 7.1 cents in each collection.

Consolidated Edison pointed out that because industrial users of electrical energy and those who produce their own electricity are excluded from the 3½ per cent tax, it is essentially an indirect tax on residential and comparatively small business users of electricity. C. J. Trudeau, chairman of the Edison Electric Institute's taxation committee, testified that, in collecting the electrical energy tax, the government was losing \$30,000,000 a year in income taxes.

PUBLIC UTILITIES FORTNIGHTLY

Pointing out that the gross tax approximates \$75,000,000 a year, Mr. Trudeau declared the tax and the cost of administering it are deducted by the utilities in computing their Federal income tax. The result, he continued, is that the net revenue to the government from this excise tax is less than \$45,000,000 a year. He also pointed up the discrimination that exists because the tax is imposed solely upon the home owner and small business customers of the investor-owned utilities and not upon sales by municipally owned or cooperatively owned power companies. Repeal of this tax, Mr. Trudeau concluded, would benefit residential customers, affording greater purchasing power.

New Valley Approach

FACED with an apparent congressional apathy toward the valley authority idea, the administration seems to be using a new strategy on the valley authority front. Local opposition in the areas selected for development along lines similar to the present Tennessee Valley Authority has necessitated a more subtle approach toward any over-all plan of regional development of water, mineral, timber, and other natural resources.

During the first session of the present Congress, Public Works committees of House and Senate held extensive Washington hearings on twin measures for the creation of a Columbia Valley Administration, believed to be the "model" for similar valley or regional developments—nine in all. Although both committees received appropriations for "on the ground" hearings in the states of the Columbia river basin, neither has made any move to conduct such hearings, nor will the chairmen, Senator Dennis Chavez (Democrat, New Mexico) and Representative William M. Whittington (Democrat, Mississippi), set dates for the hearings. In the meantime, both houses move toward controversial, time-consuming legislation that will see committee members more desirous of remaining in the nation's capital than trekking off to the Pacific Northwest.

Growing opposition on the part of area residents of the Columbia valley—and congressional apathy—now makes it look as though the administration's plans are to play for time; educate Congress and the people to the valley authority idea. This is discerned in three administration-approved amendments to the House-passed Omnibus Rivers and Harbors Bill (HR 5472).

THE first amendment, a modification of S 253 by Senator Henry Cabot Lodge, Jr. (Republican, Massachusetts), would create a New England "study commission." The "commission" would be a Federal advisory group to investigate hydroelectric power potential in all New England states, including the Passamaquoddy project in Maine and the St. Lawrence project in upper New York state.

The second amendment, by Senator Robert S. Kerr (Democrat, Oklahoma), would create another "study commission" to advise and investigate on water resources development in the Red, White, and Arkansas river basins, while the third would authorize the so-called comprehensive plan of the Army Engineers and the Bureau of Reclamation for development of the Columbia river basin along lines which could set the stage for an ultimate Columbia Valley Authority.

All three amendments are being eyed with considerable suspicion by most Republicans and a few Democrats. For some time, the Democratic high command has been trying to build up arguments supporting public power and other Federal spending development, as a means of weaning New England voters away from the Republican standard. Exploiting the fear now felt throughout New England that her industry is moving to areas where federally developed electric power is supposed to be abundant and cheap, there is the plain inference that New England can have the same advantages if it will go along with Democratic plans for Federal spending.

The spending angle is not being played up by the administration in so far as the Kerr amendment is concerned. In fact,

WASHINGTON AND THE UTILITIES

the White House, via the Budget Bureau, has simply given the proposal its blessing. Strategy for the Columbia river program thus follows a piecemeal pattern.

Central Arizona Project

SENATE approval of the \$732,000,000 Central Arizona power and irrigation project (S 75) by a vote of 55 to 28 is no indication that this measure will reach the White House during the present session of Congress. Described as "fantastic" by California opponents and neutral observers alike, the project got the Senate's OK more as a gesture of good will toward Senator Carl Hayden (Democrat, Arizona), who could face a stiff primary fight this summer had the upper chamber said "no." The bill now goes to the House, where an identical measure (HR 934) is tightly locked in the Public Lands Irrigation and Reclamation Subcommittee, lacking three, perhaps four, votes necessary for a favorable report.

Natural Gas Legislation

As this issue reaches the subscriber's desk, the Kerr Bill (S 1498) to exempt independent producers and gatherers of natural gas from Federal Power Commission jurisdiction probably will have passed the Senate and be in the hands of Senate-House conferees for adjustment of differences between it and the House-passed bill (HR 1758) of Representative Oren Harris (Democrat, Arkansas). Senator Kerr's measure has been somewhat modified with a face-saving compromise which is expected to make it acceptable to the President, who is known to have opposed the original bills of both Kerr and Harris. The Kerr Bill now carries a "watch-dog clause" directing the Federal Power Commission to keep an eye on producers of natural gas—to make sure that no monopolistic combinations develop to interfere with competitive gas prices.

The Cresser Bill (HR 5306) to regulate natural gas securities, by Representative Robert Cresser (Democrat, Ohio),

seems to face delay in the House Interstate Commerce Subcommittee on Petroleum and Federal Power. An administration measure that had not attracted any great amount of attention, extraordinarily strong opposition developed, causing one committeeman to comment that it was more "vigorous" than had been anticipated. Although hearings have been closed, Subcommittee Chairman Harris has said there is "strong" likelihood that other witnesses will be heard.

REA—Interior Divorce?

IN the March 2nd issue, an apparent alliance between the Rural Electrification Administration and the Department of the Interior, whereby the latter was getting steam-generating plants built through an interesting plan, was described, whereby REA made loans to "super co-ops," who in turn leased their steam and transmission facilities to Interior for integration with Federal grids. In this manner, Interior could by-pass a Congress that did not want to appropriate directly for Interior steam plants.

This ingenious arrangement now appears to be running into trouble that could bring about a "divorce" of the two agencies—at least in the field of power generation and distribution. Officials of REA, not wishing to antagonize the House Appropriations Committee, are now holding in abeyance a previously approved "super co-op" loan, while legislation is being readied that would make such deals clear with Congress. One bill (HR 6782) by Representative Boyd Tackett (Democrat, Arkansas), that would require congressional approval of "super co-ops" is now resting in a House Agriculture Committee pigeonhole. But two alternatives are in the offing. One would put a ceiling on the amount of a single REA loan, while the other would bar loans from one Federal agency for the direct or indirect benefit of another Federal agency. Neither move would have to clear the strongly pro-REA House Agriculture Committee.



Exchange Calls And Gossip

Telephone Strike Postponement

DOUBTLESS it was President Truman's intervention that officially averted for sixty days the nation-wide strike of the Communications Workers of America (CIO) against Bell system companies, scheduled to begin February 24th. But there are Washington observers—long familiar with national labor-management disputes—who feel that Joseph Beirne, president of the union, was just as well pleased to receive the White House plea for a truce.

Beirne's position was complicated by the request that union members and friends of the union utilize telephone facilities to the break-down point. Press comment on this proposal was generally unfavorable, the ugly word "sabotage" getting prominent position in many editorials. Beirne denied the accusation of sabotage, and issued a statement that the union would keep sufficient maintenance men and operators in each struck exchange to assure adequate service for fire, police, ambulance, medical, and other emergencies.

Still another complication in the union's position was the fact that CWA had not "laid it on the line" in so far as union demands were concerned. The February 24th strike deadline was "just around the corner" before the union asked a 15-cents-an-hour across the board increase. When asked about this during a radio press conference, Beirne's answer was not very conclusive.

Other conditions which may have prompted Beirne's decision to comply with President Truman's request were an apparent willingness of the administration to invoke the injunctive procedure

of the Taft-Hartley Act, and a pending bill of Senator A. Willis Robertson (Democrat, Virginia) to bring large unions within the purview of the Sherman Antitrust Act. And, last but not least, it was obvious, on February 22nd, that public irritation over the bituminous coal strike was at a pitch hardly sympathetic with another nation-wide shut-down in an industry essential to the public welfare.

First REA Phone Loan

THE first rural telephone loan to be made by the Rural Electrification Administration was announced in Washington late last month. At least four applications (from Alabama, Indiana, New York, and North Dakota) from independent (non-Bell) telephone companies were reported to be sufficiently completed for loan approval. But in deference to the home state of the senatorial sponsor of the Federal statute—Senator Hill (Democrat, Alabama)—it developed that the first rural phone loan would go to the Florala Telephone Company, with appropriate ceremony.

An REA announcement stated that the loan allocation is "the first step in providing adequate telephone service for every rural resident of the company's service area, in accordance with the area coverage principle of the REA telephone loan program."

The Florala Telephone Company will have to put up about 17 per cent of the total funds required and serve about 61 per cent of all potential customers in the service area. The approved loan amounted to \$243,000, while the total expenditures for plant improvements will

EXCHANGE CALLS AND GOSSIP

cost about \$285,000. The company already serves 447 subscribers and proposes to add 1,053 out of 2,460 persons living in the area after improvements are completed. In this case, as in other rural telephone loan applications, REA requested the applicant to increase the size of the original loan request in order to get more "area coverage" so as to serve a greater proportion of the rural residents. The investment per customer will thus average about \$1,270 if the total cost (\$285,000) of the improvements is allocated to the new subscribers (1,053).

The proposed rate under the Florala loan appears to be quite substantial and, above the average for rural phone service. Data submitted to the Alabama Public Service Commission in connection with the Florala application to REA suggested a residential rate of \$42 a year and somewhat higher (about \$55) for a few business subscribers. This would mean a monthly residential rate (minus tolls and excise taxes) of \$3.50 net for the company. The addition of the present Federal excise tax on monthly exchange bills (15 per cent) would mean a total outlay by the rural subscribers of slightly more than \$4 a month—which is well above the average for rural residential service. All REA borrowers, however, must charge rates sufficient to cover interest and annual amortization payments on the loan over and above operating expenses and taxes.

Governor Seizes Phone Lines

Governor Alfred E. Driscoll of New Jersey on March 1st seized all facilities of the Bell Telephone company within the state to forestall a strike by 12,000 operators and other workers.

He immediately reassured state residents that his action, under the New Jersey Public Utility Antistrike Law, would not affect telephone service in the state or between New Jersey and other parts of the country. There will be no change in the operations of the company.

Governor Driscoll's move was said to be the latest in a series of state attempts

to find a peace formula in the dispute between Division 55 of the Communications Workers of America, CIO, and the New Jersey Bell system.

Under the law, the dispute was up for arbitration by a 5-man panel. The company and the union would each designate one person, and the governor would have three public members. The decision of the board will be binding, although any ruling may be appealed to the state superior court. The governor said he would not name the three public members of the board until the union and the company had tried to reach agreement on them.

The union said its board member would be William Dunn, an aide to Joseph Beirne, president of the CWA. Walter T. Margetts, Jr., head of the state mediation board, will be administrator for the company.

Rate Increase Granted

THE Chesapeake & Potomac Telephone Company was recently reported preparing to submit revised rate schedules to the District of Columbia Public Utilities Commission, following the commission's order granting the company an annual increase in income of \$2,500,000. The rate schedules will determine just how the increase will be apportioned among various types of telephone subscribers.

The commission ordered the increase in the gross revenues of the telephone company on February 20th. The company had sought an increase of \$3,249,000 through a long series of hearings held in November and December. A public hearing on the rate schedules was set for February 28th.

The increase, while substantially less than asked, was in line with the recommendations made during the hearing by V. A. McElfresh, of the commission staff. He testified an increase of \$2,227,034 in gross income would give the company a fair return. An intervening party, David A. Kosh, public utility chief of the Bureau of Federal Supply, recommended about

PUBLIC UTILITIES FORTNIGHTLY

\$800,000 less than Mr. McElfresh did. The Federal government is the largest single customer of the telephone company, with an annual bill of about \$3,500,000 under present rates.

C. H. Johnson, vice president and general manager of the telephone company, expressed "disappointment" over the commission's action "in granting us \$1,000,000 less than the full amount of the additional annual gross revenues requested in our application." He said the authorized increase, even with previous increases granted, is approximately \$2,000,000 less than the annual cost to the company of general wage increases given employees since the war. Johnson said the company would give study "to what further action the company should take in order to raise the earnings to a satisfactory level."

Bell Pushes TV Link

FURTHER expansion of television is assured this year by the Bell system's plans to add nearly 6,500 channel miles and 17 more cities to its network by fall. This means that, before the end of 1950, the system will have doubled its television facilities each year for the last three years. Completion of the current program will bring the total cities served by network service to 43.

At the end of 1948, there were two separate Bell system television nets—one in the East, the other in the Midwest. They were comprised of about 3,500 channel miles, and were available to television broadcasting stations in 13 cities. Early in 1949 these two networks were joined by coaxial cable running from Philadelphia to Cleveland. The linking of these two points not only welded the two networks, but also brought Pittsburgh into the fold as the fourteenth city in the net.

The rapid progress being made in meeting the needs of the industry is indicated by the fact that, by the end of 1949, the network had increased to about 8,500 channel miles serving 26 cities (including Albany, which has no station at present).

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In June, 1949, Lancaster, Erie, and then Wilmington were added. Providence and Dayton were included in September and, in October, Columbus and Cincinnati. Late in the year, Rochester, Utica, Syracuse, and Schenectady were joined to the network.

The system's 1950 expansion program includes the extension of facilities to pick up Memphis in March and Norfolk the following month. Johnstown, Pennsylvania, will be included in June. Five additional southern cities are scheduled for network service in September of this year. They are Charlotte, Greensboro, Atlanta, Birmingham, and Jacksonville. By the end of October, westward progress of the network service will reach Omaha.

Rural Phone Co-op Bills Passed

Two senate bills which would create nonprofit telephone cooperatives for rural users passed the Virginia house last month. By a vote of 84 to 7, the house passed the Moses Bill which would provide for telephone cooperatives. By an 83-to-2 vote, the house approved the Moses Bill to require all public utilities to receive a certificate of necessity from the state corporation commission.

Speaking on behalf of the bill to provide telephone cooperatives, Delegate Robert Whitehead, of Nelson, said a telephone cooperative would not operate in regions now served by telephone companies. The cooperatives, he said, would serve areas which do without, and would continue to do without, telephone service.

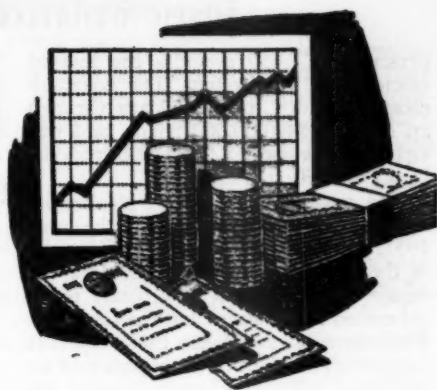
They would pay exactly the same state and local taxes as any other public service company in private hands, he said, but would receive certain exemptions from the Federal income tax.

The house struck from the calendar its own telephone cooperative bill after passing the senate measure covering the same field.

Governor Talmadge of Georgia has approved a bill passed by the state legislature authorizing the establishment of rural telephone cooperatives.

Financial News and Comment

By OWEN ELY



Utility Analyses by Wall Street Firms

HARRIMAN RIPLEY & Co. recently prepared a 40-page brochure on Niagara Mohawk Power Corporation, describing the history of the area served, the gradual development of the hydroelectric plants, and the steady growth of the newly merged company. While industrial revenues make a fairly heavy contribution to total revenues (37.6 per cent) sales are well diversified. The company's gas business will be aided by the introduction of natural gas, which should open up a large market for space heating. Substantial operating economies may also be obtained through retirement of high-cost manufactured coal-gas plants now in use. The conversion program will cost about \$4,500,000 for pipe-line facilities and

changeover of customers' equipment, while the plant write-off (undepreciated) will approximate \$3,500,000; the \$8,000,000 total will probably be amortized over a period of years.

The company's electric capacity of nearly 2,000,000 kilowatts is about evenly divided between 75 hydroelectric plants and 6 steam plants; in addition the company buys a moderate amount of hydro power. The largest plants are the Schoellkopf 335,000-kilowatt plant at Niagara Falls and the 625,000-kilowatt Huntley station at Tonawanda near Buffalo. The system is completely interconnected, with interchange arrangements with other companies. This pooling arrangement proved invaluable during the war emergency, as well as during drought periods. In the prewar years the system had a capacity nearly one-third in excess of peak-load requirements, but in 1948 there was practically no reserve capacity, peak load slightly exceeding capacity due to a combination of industrial activity and drought handicap. Currently, however, a small reserve is being built up which will be increased as the construction program proceeds.

IN 1950 it is estimated that \$43,000,000 will be spent for construction which will include the completion of the 160,000-kilowatt Dunkirk steam plant. An 80,000-kilowatt station at Oswego should be completed by 1951. The new plants will operate at 1,000 degrees with steam

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pressure of 1,450 pounds—the highest efficiency in the system. The company recently funded its bank loans through an issue of \$40,000,000 bonds, and will again borrow about \$25,000,000 from the banks in 1950, it is estimated.

The company has not yet planned its construction program beyond the year 1951, possibly because of the development of the St. Lawrence power project, recently embodied in a new treaty to be submitted to Congress and the Canadian Parliament. If and when this project is completed, one-half of the capacity or an estimated 820,000 kilowatts would become available for U. S. power companies, and part of this might be allocated to Niagara Mohawk Power. However, it is estimated that at least five years will be required for completion of this project after the necessary authorities have been obtained.

JOHN C. FEELY, of Paine, Webber, Jackson & Curtis, has prepared recent memos on Gulf States Utilities, Public Service of Colorado, and Central Arizona. Gulf States is one of the growth utility enterprises in the South, revenues having more than doubled since 1940, while the balance for common stock increased from \$1,700,000 in 1942 to \$4,600,000 in 1948. Revenues are 92 per cent electric, 6 per cent gas, 2 per cent water. Rapid growth is continuing and it is estimated that system peak load will increase from 292,000 kilowatts in 1948 to 415,000 in 1951. Peak load in 1948 exceeded the name-plate rating capacity but by 1951 there should be moderate reserve capacity, permitting relegation of inefficient units to stand-by function. Of the \$95,000,000 5-year construction program (1948-52) about \$45,000,000 remains to be spent during 1950-52.

Use of natural gas for boiler fuel means extremely low fuel expense. Firm price contracts are in effect for the principal plants for about six years ahead. Capital structure approximated 56 per cent debt, 20 per cent preferred stock, and 24 per cent common stock equity (before the pending stock offering). The management hopes to maintain an equity ratio

of 25-30 per cent during the construction period, after which it should build up gradually. On February 28th the company called for bids for 350,000 shares of additional common stock.

Public Service of Colorado has also enjoyed good growth, due in part to a plentiful supply of natural gas, sales of which now contribute about 40 per cent of revenue. The electric load is well balanced, Mr. Feely points out, industrial sales contributing only about 23 per cent of revenues. While the company serves about 9,000 square miles of the state, 80 per cent of revenues are obtained in the Denver area. Share earnings declined sharply in 1944 but have improved from \$2.27 in that year to the recent \$4.79. Steam-electric plants provide about three-quarters of electricity and hydro 20 per cent, with the balance purchased.

The story on Central Arizona Light & Power is summarized by Mr. Feely as follows:

The company has an excellent growth record. Current earnings improvement is ascribed to the making of a favorable long-term contract for natural gas for boiler fuel early in 1948 and the installation of a new 11,500-kilowatt generating unit about midyear in 1949. Continuing earnings betterment should result from the putting into operation about June 1, 1950, of a new 60,000-kilowatt generating unit, now well along the construction course.

SHIELDS & COMPANY recently issued an 11-page study of Electric Bond and Share Company. It points out that the anticipated \$1 dividend rate offers a yield of over 5 per cent which will constitute a return of capital instead of being taxable as ordinary income. Net asset value is estimated at about \$29.50 compared with the recent price around 19. Also, the study points out, stockholders will enjoy participation in "a truly unique venture capital organization operating with a \$25,000,000 revolving capital pool in a variety of special business situations and meeting a basic need in our economy. Maximum opportunities for profitable

FINANCIAL NEWS AND COMMENT

selections and operations should exist because of the technical assistance of the subsidiary, Ebasco Services, one of the world's leading business consulting and engineering organizations."

In the compilation of portfolio values United Gas Corporation (which the company may have to distribute to stockholders) is valued at \$9.57 per EB&S share, Ebasco Services at an estimated



CURRENT UTILITY STATISTICS AND RATIOS

	Unit Used	Amount Latest Month	Latest 12 Mos.	Per Cent Latest Month	Increase Latest 12 Mos.
Operating Statistics (December)					
Output KWH—Total	Bill. KWH	26.3	290.4	2%	4%
Hydro Generated	"	7.6	—	2	—
Fuel Generated	"	18.7	—	—	—
Capacity	Mill. KW	62.7	—	11	—
Customers, no.	Mill.	42.9	—	5	—
Fuel Use: Coal	Mill. tons	7.5	—	D15	—
Gas	Mill. mcf	39.9	—	10	—
Oil	Mill. bbls.	7.9	—	83	—
Coal Stocks	Mill. tons	22.0	—	D19	—
Sales, Revenues, and Rates (November)					
KWH Sales—Residential	Bill. KWH	3.9	44	10%	13%
Commercial	"	3.1	36	7	9
Industrial	"	8.4	104	D8	D2
Total, incl. misc.	"	21.3	256	D2	2
Revenues—Residential	Mill. \$	116	1,335	8	11
Commercial	"	87	1,017	6	8
Industrial	"	99	1,207	D5	2
Total, incl. misc. sales	"	365	4,310	2	6
Revenues and Income (November)					
Elec. Rev., incl. misc. rev.	"	369	4,361	2%	6%
Misc. Income	"	8	128	D1	12
Expenditures (November)					
Fuel	"	59	712	D13%	D7%
Labor	"	72	853	4	7
Misc. Expenses	"	64	753	2	3
Depreciation	"	33	379	7	6
Taxes	"	65	784	6	13
Interest	"	21	240	11	15
Amortization, etc.	"	1	21	D28	D32
Earnings and Dividends (November)					
Net Income	"	62	746	8%	15%
Preferred Div. (est.)	"	9	105	4	2
Bal. of Common Stock (est.)	"	53	641	8	18
Common Dividends (est.)	"	38	465	2	9
Balance to Surplus (est.)	"	15	176	36	130
Utility Financing (December)*					
Bonds	"	128	2,037**	D70%	D21%
Stocks	"	134	748**	219	89
Total	"	262	2,785**	D45	D6
Life Insurance Investments (January 1st-February 18th)					
Utility Bonds	"	—	149	—	103%
Utility Stocks	"	—	36	—	3,473
Total	"	—	185	—	147
% of All Investments	"	—	23%	—	114

D—Decrease. *Data for all utilities (electric, gas, telephone, etc.), including refunding issues. **Twelve months ended December 31st.

PUBLIC UTILITIES FORTNIGHTLY

\$2.29, remnant holdings of former system subsidiaries at \$5.03, American & Foreign Power securities at \$13.50, and net current assets at \$1.90. From the total is deducted \$2.74 for bank loans and the maximum liability on preferred call premiums ("stubs"), leaving a balance of \$29.55.

The value for American & Foreign Power securities is based on six times recent earnings, using an estimated 67 per cent new common stock interest which might be allocated to EB&S under a future recap plan. Recent market value of all Foreign Power securities would amount to \$18.25 a share of EB&S but this will doubtless be reduced by "subordination" to publicly owned security interests, it is anticipated, in line with the former plan which failed of enactment after SEC and court approval.

KALB, VOORHIS & Co. has issued a 5-page analysis of West Penn Electric Company. Its conclusion is "The market apparently has underappraised its earnings prospects and overappraised its vulnerability to a business recession. Although the relationship of the equity represented by this stock to total capitalization is low, the system will be able to go through this year and possibly next year without additional parent company common stock financing. The program of parent debt retirement, however, along with the retained earnings of subsidiaries, should result in gradual improvement of this low equity ratio. Earnings over the near term should reflect the benefit of the large amounts of recent additions to generating capacity and that currently under construction, as well as from the continued growth in the residential and commercial loads."

Truslow Hyde of Josephthal & Co. recently issued a 4-page memo entitled "Utility Stocks Lack Appeal—Earnings Approaching a Peak." He points out that market prices for utility stocks are currently being stimulated by the attention focused on large potential demand from accumulating pension funds. Utility fuel costs last year were substantially lower than in the previous year, due in part to

improved hydroelectric conditions, but he believes that further savings in generating costs in 1950 will prove small barring an unexpected decline in fuel prices. Moreover, other costs, some of which are beyond the control of management, are steadily rising. Depreciation charges must be stepped up as new construction is completed.

While theoretically the utilities could obtain higher rates to compensate for any future deficiency in earnings, Mr. Hyde feels that rate concessions could not be readily obtained, since the utilities last year earned nearly 6 per cent on their capitalization, and interest rates continue low. He concludes: "Under the impetus of investment demand, some further rise in utility stocks may materialize which, in our opinion, would afford a favorable opportunity to sell on the basis of a new all-time high in earnings which have been increasing with only one small interruption for the past seven years."

Proposed New Method of Calculating "Coverage" Ratios

THE financial services sometimes stick to old methods of preparing their ratios, despite the emergence of new operating or accounting practices which tend to vitiate their accuracy. Since ratios are frequently used as yardsticks in "comparison sheets" to appraise new security offerings, as well as in the less intensive routine comparisons, it is important that they should be at least approximately accurate—not merely on an arithmetical basis, but with due regard to the statistical purpose which they are intended to serve. We refer particularly to the two ratios "number of times charges earned" and "number times charges and preferred dividend earned."

An extreme instance, perhaps, is the one reflected in Moody's *Public Utilities Current Service*, page 1553, reporting the earnings of New Jersey Power & Light for the twelve months ended November 30, 1949, as compared with the

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calendar year 1948. The figures may be summarized as shown in table below.

Obviously, crediting the large item "Interest to Construction" to fixed charges means that total charges are very low—about \$96,000 for 1949 compared with \$250,000 the year before. Since the credit makes the ratio "haywire," some other method should obviously be used. The simplest procedure is to deduct the credit from gross income, since the item is set up to offset lack of earnings from properties still under construction. On this basis, "times charges earned" works out at 4.12 for 1949 and 3.39 for 1948. Similarly, "times charges and preferred dividends earned" work out at about 2.85 for 1949 versus 2.14 for 1948. These 1949 ratios are far below the abnormal results shown by Moody.

Up to the past two or three years the credit for interest to construction was usually quite small, and did not affect total fixed charges appreciably in most cases.

But because of the big building program since the war the item is now abnormally large. Hence the necessity of making special adjustments if the "number of times" figures are to have any real significance.

Utility Data Books

THE practice of issuing utility "data books" seems to be gaining, much to the satisfaction of the statistical fraternity who frequently find themselves handicapped by inadequate data during a period when heavy construction and finance programs make it necessary to appraise utility equities with special care.

Such books are frequently issued to introduce new stocks released in connection with holding company breakups, sometimes in connection with talks before the New York Society of Security Analysts, or for the use of underwriters who attend "due diligence" meetings.

Such books or brochures were issued by Middle South Utilities and Southern Company last year, and more recently by Southwestern Public Service in connection with its stock financing, and by Niagara Mohawk Power to celebrate its appearance on the "Big Board." In connection with talks before the New York Society of Security Analysts, books have been issued by Southern Natural Gas, Boston Edison, Cincinnati Gas & Electric, and other companies over the past year or so.

Annual reports frequently contain only meager statistical fare, particularly of a historical character. The data book usually contains 10-year tables or charts which give a historical perspective, special information on construction programs, etc. Until the utilities develop more satisfactory annual reports the data book is a satisfactory substitute, except that it appears at irregular intervals.

General Public Utilities appears to have worked out a good system. On February 15th the company published an abbreviated report to stockholders in the form of a folder, with three pages of text and an open-up spread four pages in size, summarizing the income accounts and balance sheet items. These "Financial High Lights" were followed about ten days later by a 36-page "Supplemental Report" giving more detailed tables. Presumably the later report went to a more

	1949	1948
Gross Income before Federal Income Taxes	\$1,606,026	\$1,100,619
Fixed Charges:		
Bond Interest	484,939	353,500
Other Interest	7,616	10,518
Miscellaneous Deductions	1,544	1,928
Debt Discount and Expense	cr 8,838	cr 8,647
Interest to Construction	cr 389,530	cr 108,777
Times Charges Earned (before Federal Income Taxes)....	17.04	4.46
Times Charges and Pref. Div. Earned	6.22	2.49

PUBLIC UTILITIES FORTNIGHTLY

restricted mailing list, permitting savings in printing and mailing.

High Cost of TVA to U. S. Treasury Claimed

THE annual analysis of TVA operations by William Carpenter, economist of the Edison Electric Institute, was headlined on the financial page of *The New York Times* under the caption " '\$119,579,000 Loss Charged to TVA—Edison Institute's Study Finds 'Gifts' by Taxpayers Since '33 Were \$144,000,000—Agency's Bookkeeping Does Not Reveal True Picture, Utility Body Asserts.' " This publicity may have served as a partial antidote for the *Times'* earlier misinformed editorial, which spoke favorably of TVA's broad contributions to the welfare of the Tennessee area.

Mr. Carpenter's complete story, which appeared in the February issue of his "Data of Interest to the Electric Light and Power Industry," reported that while TVA's net from operations increased 25 per cent to \$20,704,000 in the fiscal year ended June 30, 1949, due to improved rainfall, net losses from other activities were \$10,602,000, leaving net gross income of \$10,101,000. The U. S. Treasury, however, had paid out \$17,144,000 in interest on its real investment in TVA properties, according to Mr. Carpenter, resulting in a net loss to taxpayers of \$7,042,000 and an accumulated loss over the years of some \$144,000,000 (not including any return on the old Muscle Shoals power plants of World War I vintage transferred by the War Department to TVA). The amount of interest was derived by applying the average interest rate on all outstanding U. S. interest-bearing bonds to the "Proprietary Interest of the United States" in TVA as shown in the annual reports of the Secretary of the Treasury.

Taxes paid by TVA and by the municipal and coöperative agencies which distribute much of its power totaled only 5 per cent of revenues, while all the utility companies of the United States paid out

19 per cent of their revenues in taxes.

Bonneville Power Administration is now approaching TVA in size of output, and Mr. Carpenter pointed out that Bonneville sells its power at only .230 cents per kilowatt hour as compared with .429 cents for TVA. Bonneville, of course, does not have to carry the load of general welfare activities with which TVA is burdened, but other factors may also explain the big discrepancy in rates.

November Earnings of Electric Utilities

ELECTRIC utility operating revenues gained 1.9 per cent in the month of November as compared with a year previous, although kilowatt sales were down 1.5 per cent. Residential revenues gained only 8.3 per cent compared with 10.4 per cent increase in kilowatt-hour sales, the difference reflecting the steady decline in the average cost of a kilowatt hour to consumers, partly accounted for by the greater use of appliances with their promotional rate schedules. There was a similar decline in commercial rates, revenues gaining only 5.7 per cent contrasted with a kilowatt-hour gain of 7.2 per cent. On the other hand industrial revenues declined only 5.1 per cent compared with a decrease in kilowatt-hour sales of 8.1 per cent.

Turning to the expense account, we find that fuel costs dropped 13.1 per cent, while labor costs increased 4.1 per cent and other expenses 1.9 per cent. Depreciation gained 6.8 per cent over the previous year, and taxes 5.8 per cent. However, because of the big saving in fuel, total expenses showed only a negligible gain over last year, and net electric operating revenues gained 8.8 per cent and gross income 7.8 per cent.

Interest on long-term debt was 10.8 per cent over last year, in line with the 11 per cent increase in electric utility plant, but the increased credit for interest on construction held the gain in total fixed charges to 7.6 per cent. As a result net income for the month showed a gain

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of 7.9 per cent, and for the twelve months ended November, the gain was 15.2 per cent.

Gas Sales in 1949

TOTAL sales of gas by utilities to ultimate customers in December, 1949, were 3,775,497,000 therms, an increase of 18.8 per cent over the 3,177,509,000 therms sold in December, 1948, the American Gas Association reports. For the twelve months ended December 31, 1949, the gain was 9.5 per cent. The association's index of gas sales for December, 1949, was 258.3 per cent of the 1935-1939 average.

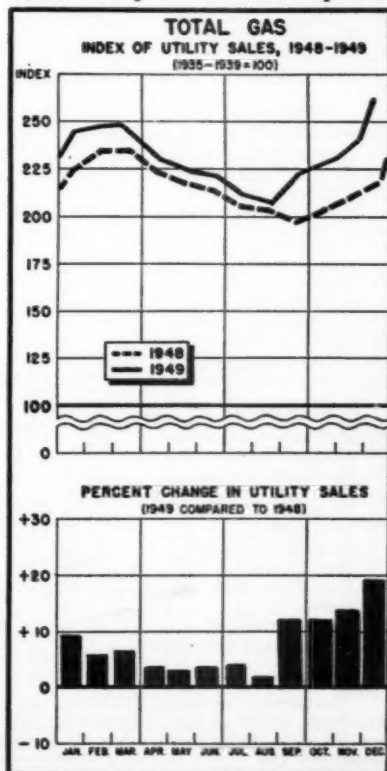
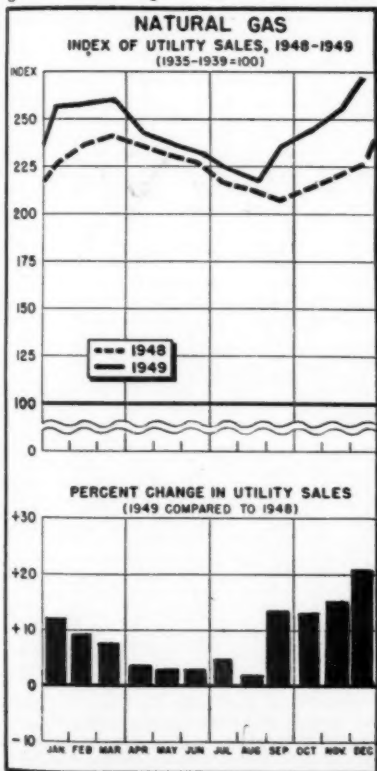
Natural gas sales in December gained 21.0 per cent, while the calendar year gain was 11.2 per cent. The December

index was 273.5. Manufactured gas sales for December increased only 2.6 per cent and for the calendar year were down 3.6 per cent. The December index was only 173.6 or about 100 per cent below the natural gas index.

Mixed gas sales in December were down 4.7 per cent, and for the calendar year 6.6 per cent, while the December index stood at 147.3. This trend seems explained by substitution of full natural gas for mixed gas in some cities.

The accompanying charts show the trends for natural gas and total gas sales during 1949.

The AGA has recently reported total revenues from utility sales of gas for the 12-month period ending December 31, 1949, were \$1,658,000,000, an increase of 7.4 per cent over revenues of \$1,543,000,000 in the previous 12-month period.



PUBLIC UTILITIES FORTNIGHTLY

RECENT FINANCIAL DATA ON GAS COMPANY STOCKS

	2/21/50 Price About	Indicated Dividend Rate	Approx. Yield	12 Mos. Ended	Share Cwr. Period	Earnings Prev. Period	% In- crease	Price Earn- ing Ratio
Natural Gas—Retail								
C Arkansas Natural Gas	11	\$.60	5.5%	Dec.	\$1.44	\$.80	80	7.6
O Atlanta Gas Light	21	1.20	5.7	Sept.	1.71	1.79	D5	12.3
S Columbia Gas System	12	.75	6.3	Dec.	.87*	1.12*	D22	13.8
C Consol. Gas Util.	14	.75	5.4	Oct.	1.65	1.61	3	8.5
S Consol. Nat. Gas	45	2.00	4.4	Sept.	3.51	3.75	D6	12.8
O Houston Nat. Gas	16	.80	5.0	July	1.45	1.42	2	11.0
O Indiana Gas & Water	21	1.20	5.7	Dec.	1.81	1.39	30	11.6
O Kansas-Neb. Nat. Gas	18	1.00	5.6	Dec.	1.70	1.36	25	10.6
S Laclede Gas Light	7	.20	2.9	Sept.	.84	—	—	8.3
C Lone Star Gas	24	1.20	5.0	Sept.	1.74	2.23	D22	13.8
O Minneapolis Gas	17	1.00	5.9	Dec.	1.03	1.10	D6	16.5
O Mission Oil	43	2.20	5.1	Dec.	2.05	2.04	—	21.0
O Mobile Gas Service	25	1.50	6.0	Sept.	2.05	2.77	D26	12.2
S Montana-Dakota Util.	13	.80	6.2	Sept.	1.36	1.27	7	9.6
C National Fuel Gas	12	.60	5.0	Sept.	.74	.69	7	16.2
C Okla. Natural Gas	36	2.00	5.6	Dec.	3.11	3.46	D10	11.6
S Pacific Lighting	53	3.00	5.7	Dec.	2.86**	3.96**	D28	18.5
C Pacific Pub. Service	15	1.00	6.7	Dec.	2.08	3.21	D50	7.2
S Peoples Gas L. & C.	137	6.00	4.4	Sept.	11.76	9.85	19	11.6
C Rio Grande Valley	2	.12	6.0	Dec.	.20	.21	D5	10.0
O Rockland Gas	32	1.70	5.3	Dec.	2.73	3.36	D19	11.7
O Southern Union Gas	21	.80	3.8	June	1.53PF	—	—	13.7
O Southwest Nat. Gas	6	.20	3.3	Sept.	.33	.31	7	18.2
S United Gas	18	1.00	5.6	Dec.	1.43	1.71	D16	12.6
S Washington Gas Light ...	25	1.50	6.0	Dec.	1.68	1.69	—	14.9
Averages			5.3%					12.6
Natural Gas—Wholesale and Pipeline								
S American Natural Gas	31	\$1.20	3.9%	Sept.	\$1.71	\$.33	418	18.1
S El Paso Nat. Gas	27	1.20	4.4	Nov.	1.83	2.35	D22	14.8
O Interstate Nat. Gas	31	2.00	6.5	Dec.	2.03	1.71	19	15.3
O Mississippi Riv. Fuel	38	2.00	5.3	Sept.	2.48	—	—	15.3
O Mountain Fuel Supply	22	.60	2.7	Dec.	.91	.94	D3	24.2
S Northern Nat. Gas	39	1.95	5.0	Sept.	2.74**	2.42**	13	14.2
S Panhandle East. P. L.	43	2.00	4.7	Dec.	2.54	2.35	8	16.9
O Republic Natural Gas	40	1.00	2.5	June	3.03	2.72	11	13.2
S Southern Nat. Gas	37	2.00	5.4	Sept.	3.00	2.76	9	12.3
O Southern Production	10	—	—	June	.37	.28	32	27.0
O Southwest Gas Prod.	12	—	—	Dec.	.47	.14	236	25.5
O Tenn. Gas Trans.	30	1.40&Stk.4.7	—	Dec.	1.65**	1.27**	30	18.2
O Texas East. Trans.	19	64%Stk. —	—	Dec.	1.58	1.18	34	12.0
Averages			4.4%					17.8
Manufactured Gas—Retail								
C Bridgeport Gas	25	\$1.40	5.6%	Dec.	\$1.60	\$1.69	D5	15.6
O Brockton Gas Lt.	19	1.00	5.3	Dec.	.43	1.00	D11	—
S Brooklyn Union Gas	38	2.00	5.3	Dec.	4.32	1.21	257	8.8
O Hartford Gas	36	2.00	5.6	Dec.	1.85	2.10	D12	19.5
O Haverhill Gas Lt.	28	1.80	6.7	Dec.	2.23	1.54	62	11.7
O Jacksonville Gas	32	1.40	4.4	Dec.	6.06	5.64	7	5.3
O New Haven Gas Light ...	29	1.60	5.5	Dec.	1.76	1.77	—	16.5
O Providence Gas	10	.60	6.0	Dec.	.73	.64	14	13.7
O Seattle Gas	14	.35	2.5	June	1.01	.44	130	13.9
O South Jersey Gas	11	—	—	Dec.	.41	.38	9	26.8
S United Gas Improvement ..	29	1.30	4.5	Sept.	1.89	2.00	D6	15.3
Averages			5.1%					14.7

D—Decrease or deficit, E—Estimated, S—New York Stock Exchange, C—Curb Exchange.
O—Over-counter or out-of-town exchange. PF—Pro forma. #—Nine months ended September 30, 1949. **Earnings are based on present number of shares outstanding. †—Seven months ended July 31st.

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RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER COMPANIES

	2/21/50 Price About	Indicated Dividend Rate	Approx. Yield	Share 12 Mos. Ended	Earnings Cur. Period	Earnings Prev. Period	% In- crease	Price- Earnings Ratio
Telephone Companies								
<i>Bell System</i>								
S Amer. Tel. & Tel.	150	\$9.00	6.0%	Dec.	\$9.22**	\$8.80**	5%	16.3
O Cinn. & Sub. Bell Tel.	74	4.50	6.1	Dec.	4.80	3.76	28	15.4
C Mountain Sts. T. & T.	99	6.00	6.1	Dec.	6.55	8.30	D21	15.1
C New England Tel.	93	4.75	5.1	Dec.	7.19	4.59	57	12.9
S Pacific Tel. & Tel.	104	7.00	6.7	Dec.	6.73*	6.81*	D1	15.5
O So. New Eng. Tel.	32	1.60	5.0	Dec.	2.22	.94	136	14.4
Averages			5.8%					14.9
<i>Independents</i>								
C Associated Tel. A	56	—	—	—	—	—	—	—
S General Telephone	29	\$2.00	6.9%	Sept.	\$2.29	\$2.28	—	12.7
C Peninsular Tel.	48	2.50	5.2	Dec.	5.66	5.25	8	8.5
O Rochester Tel.	13	.80	6.2	Dec.	.80	.47	70	16.3
Transit Companies								
O Chicago S.S. & S.B.	8	\$1.00	12.5%	Dec.	\$1.40	\$1.38	1%	5.7
O Cinn. St. Ry.	5	.30	6.0	Dec.	.77	1.57	D51	6.5
O Dallas Ry. & Term.	11	1.40	12.7	Dec.	2.27	3.39	D33	4.8
O Duluth Sup. Trans.	9	1.00	11.0	Dec.	.44	2.75	D84	20.5
O Kansas City Pub. Ser.	1	—	—	Aug.	.02	—	—	—
O Los Angeles Transit	44	.50	11.1	Dec.	.93	.87	7	4.8
S Nat'l. City Lines	10	.50	5.6	Dec.	1.97	1.57	25	4.6
O Phila. Transit	5	—	—	Dec.	1.03	.31	232	2.9
O St. Louis Pub. Ser. A	6	.50	8.3	Dec.	.70	.37	89	8.6
O Syracuse Transit	20	2.00	10.0	Dec.	1.40	3.52	D60	14.3
S Third Ave. Transit	4	—	—	—	—	—	—	—
S Twin City Rapid Tr.	9	—	—	—	.39	.62	D37	23.1
O United Transit	24	—	—	Dec.	.13	.21	D38	21.2
Averages			9.7%					10.6
Water Companies								
<i>Holding Companies</i>								
S Amer. Water Works	10	\$.60	6.0%	Sept.	\$.82	\$.74	11%	12.2
O N. Y. Water Service	96	2.00	2.1	Sept.	7.49	2.89	159	12.8
<i>Operating Companies</i>								
O Bridgeport Hydraulic	34	\$1.60	4.7%	Dec.	\$1.62*	\$1.65*	D2%	21.0
O Calif. Water Serv.	31	2.00	6.5	Dec.	2.59	2.48	4	12.0
O Elizabethtown Water	105	6.00	5.7	Dec.	6.89	7.33	D6	15.2
S Hackensack Water	44	1.70&25% Stk.	3.9	Dec.	3.35	2.79	20	13.1
O Indianapolis Water	17	.80	4.7	Dec.	1.42	1.19	19	12.0
O Jamaica Water Supply	22	1.50	6.9	Dec.	2.27PF	—	—	9.7
O Middlesex Water	57	3.00	5.3	Dec.	4.94	5.71	D13	11.5
O New Haven Water	61	3.00	4.9	Dec.	3.61	3.34	8	16.9
O Ohio Water Serv.	22	1.50	6.8	Sept.	2.00	2.31	D13	11.0
O Phila. & Sub. Water	24	.80	3.3	Dec.	3.01	2.70	11	8.0
O Plainfield Union Wt.	68	4.00	5.9	Dec.	5.02	4.74	6	13.5
O San Jose Water	33	2.00	6.1	Dec.	2.78	2.78	—	11.9
O Scranton-Spring Brook	12	.70	5.8	Sept.	.83	.87	D5	14.5
O Southern Cal. Water	46	3.25	7.1	June	3.73	5.42	D31	12.3
O Stamford Water	56	2.00	3.6	Dec.	2.21	2.27	D3	25.3
O West Va. Water Serv.	18	1.00	5.6	Dec.	1.48	1.39	7	12.2
Averages			5.3%					13.8

D—Deficit. E—Estimated. S—New York Stock Exchange. C—Curb Exchange. O—Over-the-counter or out-of-town exchange. *Based on average number of shares outstanding. **Based on present number of shares now outstanding. PF—Pro forma.



What Others Think

Arguments for Natural Gas Security Regulation



At hearings recently held in Washington before the Subcommittee on Petroleum and Federal Power of the House Committee on Interstate and Foreign Commerce, pro and con testimony was submitted regarding HR 5306. This is a bill introduced by Representative Crosser (Democrat, Ohio) which would bring the regulation of securities issued by the natural gas industry under the jurisdiction of the Federal Power Commission.

Leading off the testimony in favor of the bill was that of Nelson Lee Smith, chairman of the Federal Power Commission. Commissioner Smith pointed out that the securities of the interstate natural gas pipelines were not now effectively regulated by the various commissions of the states through which the pipeline is passed. He claimed that the Securities and Exchange Commission does not regulate the securities of the interstate pipe-line company except in cases where the natural gas companies happen themselves to be holding companies or holding company subsidiaries. Smith emphasized that there was no attempt being made to usurp the local regulatory powers of the state commission or the present existing authority of the SEC in dealing with natural gas securities.

Smith cited the rapid growth of the natural gas pipe-line industry with the aid of several charts and then called the committee's attention to the heavy debt ratio structures of most of the pipe-line companies. He then stressed a warning given by ex-Chairman Hanrahan of the SEC when he said:

More than a year ago the then chairman of the Securities and Exchange Commission pointed to a tendency for the capital structures of certain natural

gas companies to become top-heavy with debt. He sounded a warning against the danger of thinning the equity to control a very large corporate enterprise with a relatively small investment in voting stock. While this sort of leverage may result in high earnings on common stock it may also lead to financial hazards in hard times. Certainly the proportion of debt which may be safely included in the capitalization of a public utility corporation depends upon many factors; the standards of capitalization applicable to one industry will not necessarily be applicable to another. But regulatory scrutiny of matters of this character is desirable for the protection, not only of investors, but also of consumers who are dependent upon the industry for adequate service at reasonable rates.

HE further stated that with large investment houses interested in the marketing of natural gas securities, they are naturally in a position to acquire substantial blocks of the voting stock of individual gas companies. In view of this there is the possibility that a lack of arm's-length relationship may result in the exaction of excessive commissions and in an unnecessarily high cost of money to the borrower. In this connection he referred to competitive bidding as affording the best protection where the circumstances are appropriate.

The Federal commissioner then cautioned against having his words interpreted as indicating anything but a very healthy financial condition in the natural gas industry but indicated that without effective security regulation there are possibilities of unsound practices leading to serious public detriment. At this point he stated:

WHAT OTHERS THINK

The history of public utility finance shows how easy it is to manipulate securities. The electric utility debacle of the early thirties is an example of what can result from the failure to enact timely and adequate preventive legislation. That the Securities and Exchange Commission has spent the fifteen years since the enactment of the Public Utility Holding Company Act of 1935 in efforts to repair the damage done to that industry is evidence of how costly and time-consuming curative action can be.

Manifestly, this is a case where an ounce of prevention is truly worth a pound of cure.

Smith recommended amendments which he thought would improve the bill along the following lines:

1. Clarify any charges of overlapping jurisdiction by the SEC and Federal Power Commission — preserving SEC's current rôle in regulating holding company securities, and

2. Preserve state interests. This would cover the company operating wholly within a particular state. Exemptions would also be granted to large companies such as Consolidated Edison of New York and Pacific Gas and Electric in California where the gas sales of these companies—presumably subject to the commission's jurisdiction—would be very minor compared with the other activities. Niagara Mohawk Power Corporation and Cincinnati Gas & Electric Company were also considered to fall into the same category.

Arguments against Natural Gas Security Regulation

APPEARING before the House subcommittee in opposition to HR 5306, representatives of the industry stressed their arguments as to why the legislation was not needed.

Scott Hughes, chairman of the legal committee of the Independent Natural Gas Association of America, testified against the measure. He stated that in spite of a splendid financial record, the proposed bill (HR 5306) would impose upon the natural gas companies, regulation which would completely substitute the judgment of the Federal Power Commission for that of management and the state authorities in matters of finances and the operations of such companies. Hughes supported his observations with claims that (1) existing Federal regulation was adequate and (2) existing state regulation was also adequate.

Hughes pointed out that the Federal Power Commission already exercises broad regulatory powers over the finances of natural gas companies. As an example, he cited the case of a company being required to obtain a certificate of public convenience from the commission

when construction facilities were contemplated. The commission at that time could determine whether or not the financing of the project is in the public interest. Hughes also claimed that the commission could well exercise a continuing jurisdiction over the rates and services of a natural gas company. In so doing, it could prescribe safeguards for the preservation of its initial authorizing regulation which would take into consideration intermediate refinancing.

On the subject of adequate state regulation, Hughes itemized the activities of the various state commissions in connection with natural gas security regulation and the regulation of the industry's activities in general. Regarding state *versus* Federal regulation in the gas field, the gas executive stated:

The proposed legislation cannot be construed to fill any gap between state jurisdiction on the one hand and Federal jurisdiction on the other. In its present form, the bill would exclude state jurisdiction and create an unnecessary paramount Federal control.

PUBLIC UTILITIES FORTNIGHTLY



"OH, THAT IS OLD COPPERMOUTH SHOWING OFF AGAIN!"

It would obviously eliminate state control and jurisdiction in important particulars contrary to the basic philosophy of the Natural Gas Act. It has been repeatedly recognized by the Supreme Court of the United States that the "Natural Gas Act did not envisage Federal regulation of the entire natural gas field to the limit of constitutional power.

"Rather it contemplated the exercise of Federal power as specified in the act, particularly in that interstate segment which the states were powerless to regulate because of the Commerce Clause of the Federal Constitution. The jurisdiction of the Federal Power Commission was to complement that of the state regulatory bodies." (Federal

Power Commission *v.* Panhandle Eastern Pipeline Co. June 20, 1949.) It has been aptly stated that "the key to an understanding of the Federal Natural Gas Act is its purpose to supplement but not supplant state regulation"; and that "Congress meant to create a comprehensive scheme of regulation that would be complementary in its operation to that of the states, without any confusion of functions." (Per Mr. Justice Jackson in *Federal Power Commission v. East Ohio Gas Co. et al.* January 9, 1950.)

ANOTHER gas industry representative, L. Dan Jones, attorney for the Independent Petroleum Association of America, recommended that no action be

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WHAT OTHERS THINK

taken on the Crosser Bill (HR 5306) at this time. He recommended that action be delayed until the confusion surrounding the jurisdictional status of producers and gatherers under the Natural Gas Act be clarified by legislation. Jones cited in his testimony that in view of the Harris Bill (HR 1758) passed by the House, which would exempt "arm's-length" producers of natural gas from regulation under the Natural Gas Act, and several other bills now pending in Congress dealing with amendments to the Natural Gas Act, action on the Crosser Bill should be held up until it was determined just who would be subject to the bill.

Discussing the Crosser Bill, the attorney noted that the bill would cover both public and private financing since the term "security" is not defined. Furthermore, Jones saw in the Crosser Bill restrictions, "elements entirely inconsistent with the normal operations of the oil and gas business." He listed them as those:

1. Which would involve delay.
2. Which would involve divulging information which either would nullify or destroy the value of the business venture the producer or gatherer was endeavoring to consummate.
3. Which would adversely affect the producers' and gatherers' marketing outlets by hampering the freedom of operations of interstate purchases of gas.

If the measure were adopted Jones could see its operations—namely, the commission substituting its judgment and responsibility for that of the producer and gatherer—as resulting in the destruction of the individual initiative so essential to the oil and gas business. In this respect it would be extremely disruptive of normal or long-established methods of operations, and as a result would be against the best interests of the industry and the consuming public.

—D.T.B.

Teacup Furnace?

THE possibility of a furnace no larger than a teacup and capable of heating an average-sized house was one of the wonders of science disclosed by Charles E. Wilson, president of General Electric Company, before a recent annual meeting of the Baltimore Association of Commerce. The vigorous electric company executive described the accomplishments of the past half-century and predicted greater progress in the next. Mr. Wilson remarked that in the typical coal-burning boiler of a half-century ago there was an energy release of 40,000 heat units an hour for every cubic foot of combustion space. By way of contrast in modern gas turbine-combustion chambers, 20,000,000 units of heat energy are produced an hour for every cubic foot of space. And in rocket motors the number of heat units produced per hour exceeds 2.5 billion units.

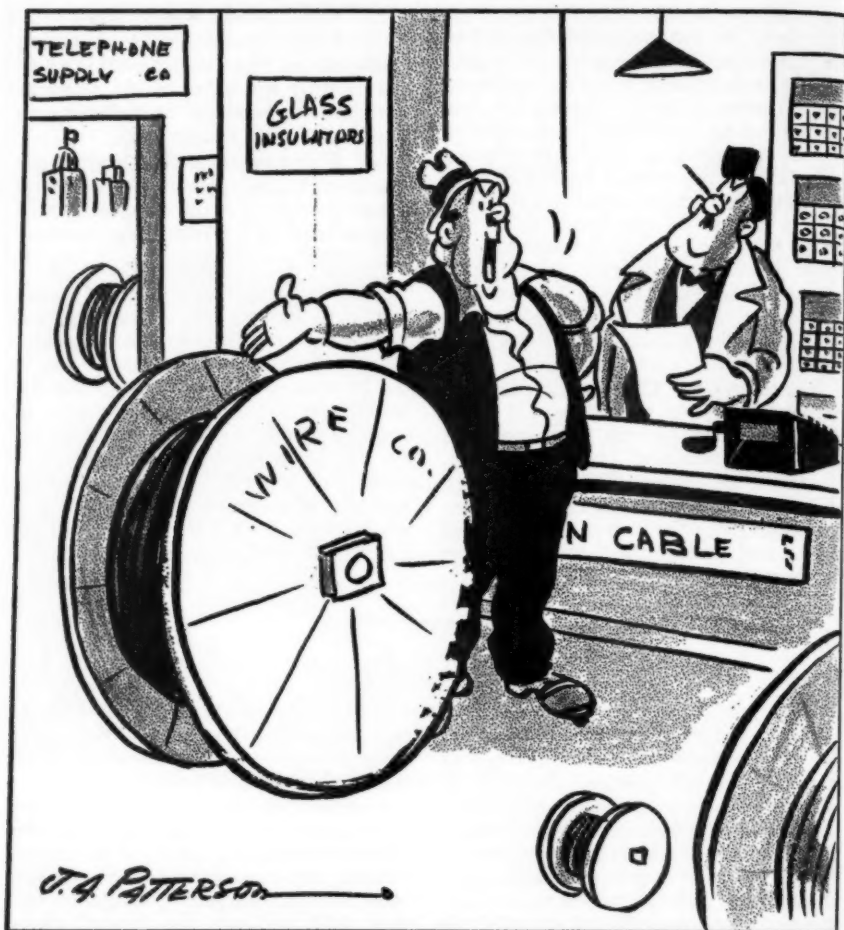
Five pounds of coal would be required to produce one kilowatt hour of electric

energy in the original turbines but the modern turbine produces the same amount of power, using less than seven-tenths of a pound of solid fuel.

Commenting on his recent appearance before a congressional committee investigating monopolies, Mr. Wilson characterized such hearings as "an excellent thing for all of us, government and business and public." He termed these hearings a "characteristically American device," and saw in them nothing to fear so long as "we are honest men with nothing to hide."

GENERAL ELECTRIC COMPANY has taken the testimony given by Mr. Wilson before the monopoly committee and that of Dr. C. G. Suits, vice president and director of research laboratory for General Electric, and combined them in a noteworthy 63-page presentation. Both Mr. Wilson's formal statement and his testimony in response to questions by

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"YOU PEOPLE HAVE BEEN SO SLOW DELIVERING THIS CABLE ORDER FOR MY BOSS, I THINK I'LL HAVE YOU WRAP IT AS A GIFT"

the committee appear in a very readable form. The testimony of Dr. Suits is accompanied by several plates which were shown at the hearings and served to illustrate the remarkable progress made and in the making at General Electric laboratories.

Of special interest to utility men should be the data on advanced turbine development using steam, mercury, and gas. Other GE developments in electron

tubes and electric light bulbs were also noted. Mr. Wilson supplemented his formal statement with references to statements of several witnesses who preceded him before the committee with testimony critical of General Electric and answered the specific assertions by others with "the facts" as seen by General Electric.

Other phases of Mr. Wilson's testimony touched on General Electric patent

WHAT OTHERS THINK

licensing policies, government procurement policy, availability of risk capital, and a special section devoted to the discussion of a pamphlet written by T. K. Quinn, entitled "I Quit Monster Busi-

ness." The General Electric top executive pointed out conflict between Quinn's testimony, his pamphlet (noted above), and his book *Liberty, Employment, and No More Wars*.

Coal Research Program Terminated

THE Pittsburgh Consolidation Coal Company has announced the termination of its 13-month experiment carried on to study and develop the fluidized process as applied to the gasification of coal. These experiments were conducted in conjunction with the Standard Oil Development Company.

The gasification pilot plant, which operated around the clock seven days a week with few interruptions, was used in the program which included the testing of a particular fluidized gasification process during long periods and over a wide range of operating conditions. The operations included the making of producer gas in air-blown operation, and production of good quality synthesis gas when feeding steam and oxygen into the reactor.

Initial operation with ground "Disco" was followed by feeding Pittsburgh seam bituminous coal. Gas produced from the fluid bed near pilot plant is free of tar, in contrast with gas made by other methods directly from coal.

Although the pilot plant operations have been terminated, engineers of both companies will continue to work over the mass of data collected during these operations.

While some problems remain unsolved the results in the main have been definitely pleasing and encouraging. The remaining problems are such that they will require study on a laboratory scale, and this work is going forward.

Three factors have figured in the decision to terminate operations:

(1) In the period since 1947, when the joint plans of the two companies were first announced as looking toward synthetic gasoline, significant changes have occurred in the national fuel picture. Adequate supplies of crude petroleum account for the fact that there is neither the market demand nor the economic incentive to warrant large-scale effort now for early commercialization of the project.

(2) The increasingly unsettled aspect of coal costs has to a great extent discouraged the effort. For example, in the conversion process, coal itself would account for 50 per cent of the total direct operating costs. The company sees any new increase in the cost of producing coal as pushing farther away the day when large-scale conversion of coal can be accomplished economically.

(3) Another important factor affecting long-range plans for commercialization of this process are the frequent interruptions in the supply of coal.

In the face of these obstacles the company has, however, found it advisable to continue large-scale exploratory research in this coal conversion field and has even increased the appropriations for this research work to a figure much greater than its budget for this type of work in 1949.

New England Water-power Facts Augmented

EVER since the much postponed New England Democratic conference was first scheduled, there has been a contro-

versial stir in the staid New England countryside regarding the pros and cons of additional development of the New

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England water-power potential. Representatives of the Department of Interior and the Federal Power Commission have sallied forth into the traditionally conservative areas and boasted of being able to bring under control, vast untapped sources of water power from the many rivers in that section of the country.

The Federal Power Commission conducted a preliminary survey which estimated 3,119,000 kilowatts—which survey was cited by many public power advocates as a basis for serious consideration of Federal development in the area.

The New England Council countered with a survey resulting in a much more conservative figure of a water-power potential amounting to 500,000 kilowatts of capacity. This survey was conducted by an independent Boston firm of consulting engineers.

A short time ago the *Providence Journal Bulletin*, seeing the need for the fullest possible information on the subject, sent its financial editor, George H. Arris, into the field with a staff of engineers and published the results of his findings in a series of ten factual articles on the subject.

These ten articles, complete with statistics and charts, plus photographs of some of the existing installations, have been combined in a 26-page booklet recently published by the newspaper.

THE need which motivated the undertaking was, according to the editorial comment, one of finding and producing "FACTS, FACTS, and FACTS." It is more or less a complete compilation of the entire New England picture inasmuch as Mr. Arris makes constant reference to the companion FPC and New England Council survey efforts and can well serve as an up-to-the-minute treatise on the much debated subject. Engineers assisting Arris in this survey arrived at the conclusion that there was no more than 1,084,775-kilowatt capacity of development by standards of engineering practicability.

The controversy is one which has yet to be settled and with the status of the political conference—originally scheduled to discuss this subject—still unsettled, this effort of the *Providence* newspaper may become an important factor in a final solution of the New England water power topic.

Notes on Recent Publications

GAS ABSTRACTS ENTER SIXTH YEAR. With the January, 1950, issue, *Gas Abstracts* entered its sixth year of providing comprehensive digests of the current literature bearing on the problems of the gas industry. Prepared by the Institute of Gas Technology, Technology Center, Chicago, *Gas Abstracts* is the only publication so serving the gas industry today. More than 80 journals are surveyed each month for pertinent information and selected articles are abstracted by specially qualified institute staff members. Author and subject indexes are prepared annually, so that *Gas Abstracts* becomes an indexed yearly record of gas industry developments reported in the literature or patents. Binders are supplied to preserve each yearly volume for permanent reference. *Gas Abstracts* is supplied to the institute's associate member companies and contributors without charge and is available to others at an annual subscription fee of \$15.

The author and subject indexes to Volume 5, 1949, are in an advanced stage of preparation and will be distributed shortly. A limited number of copies of Volume 5 are available.

THE ELECTRIC POWER INDUSTRY. Past, Present, and Future. A more permanent record of this important compilation of the facts and accomplishments of the electric power industry is now available in bound book form. The data, originally presented in the seventy-fifth year anniversary edition of the *Electrical World* (May 21, 1949), cover many fields of interest to the utility man. Technical and industry organizational problems are discussed at length in forty-one articles by competent members and observers of the industry. The chapter headings are as follows: Power Stations; Station Generation; Transmission; General System Techniques; Distribution; Maintenance and Metering; Use of Electricity—Organization and Regulation; and Industry Organizations. **THE ELECTRIC POWER INDUSTRY. Past, Present, and Future.** McGraw-Hill Book Company. 178 pages. Price \$3.50.

The March of Events



In General

Census to Gather Electrical and Gas Information

CENSUS takers are scheduled to gather information that will be of interest to the gas and electric utility industries, ascertaining information from householders on such items as heating equipment and fuel used, electric lighting, type of refrigeration, radio and television sets installed. In addition, farmers will be asked to report whether they have electric water pumps, electric water heaters, home freezers, electric washing machines, electric chicken brooders, or electric feed grinders. Information collected will be confidential as to individual identities and will be published only in anonymous tables, Census Bureau officials say.

Farm Bureau Endorses Co-op Taxation

THE American Farm Bureau Federation favors Federal taxation of part of the profits of farm coöperatives, according to James Daniel, syndicated writer for the Scripps-Howard papers. In a signed article of February 28th, Daniels said in part:

Breaking ranks with other farm organizations, the powerful federation told the tax-writing House Ways and Means Committee it believed co-ops should pay income taxes on profits which they did not return or assign to their patrons.

Such a policy would affect approximately half of the nation's 10,000 farm coöperatives. These are the co-ops which claim full statutory tax exemption, including the privilege of build-

ing up cash reserves not treated as the property of patrons.

Donald Kirkpatrick, chief counsel for the Farm Bureau Federation, said his organization was "unalterably and aggressively" opposed, however, to applying the Federal corporation tax to profits which were distributed or "clearly" assigned to patrons. Such profits, he said, were really rebates and belonged to the patrons.

The federation's testimony caused a stir among the witnesses gathered to oppose a drive by the National Tax Equality Association to have all co-op profits taxed at the same rate as ordinary corporation earnings. This rate is 38 per cent after \$50,000.

Says TVA Power Earns Four Per Cent

SENATOR Kenneth McKellar (Democrat, Tennessee) recently placed in the *Congressional Record* a statement by Tennessee Valley Authority Chairman Gordon Clapp, designed to show that TVA has earned about 4 per cent on its power system investment.

Chairman Clapp reported that TVA's net earnings in 1949 totaled \$21,479,000, reflecting a return of 5 per cent. A higher rate of return, he said, was made in 1947 when it was 5½ per cent. He added that by June, 1950, TVA cumulative payments into the Treasury will total about \$54,200,000.

This amount, Clapp continued, consists of \$16,000,000 for bond retirements, \$29,100,000 from power earnings, and \$9,100,000 from nonpower sources. He also said that power revenues through June, 1949, totaled \$367,000,000.

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Of this amount, Clapp stated, \$155,000,000 was used for power system operations, \$18,000,000 for in lieu of tax payments to state and local governments, and \$6,000,000 as interest payments to the Treasury and the Reconstruction Finance Corporation.

Continuing, he said cash earnings reached \$212,000,000 and were used as follows: purchase of additional equipment, \$159,000,000; for payments to the Treasury, \$39,600,000; and for power system inventories, \$7,600,000.

Incorporate for Southeastern Resources Development

THE Southeastern Resources Development Association, with headquarters in Birmingham, Alabama, was recently incorporated for the purpose of "discovery, development, improvement, beneficial use, and conservation of the soil, water, and other resources of the southeastern states." Trustees named are from Alabama, Georgia, Mississippi, and Florida.

P. O. Davis, director of extension service at Alabama Polytechnic Institute, was named president of the new organization. He said one of the main items planned for the association is "pushing" the development of southeastern rivers to provide additional electric power for the region.

Alabama

Union Backs Transit Fare Hike

REVERSING a stand it took several weeks ago, the Birmingham Federation of Labor, affiliated with the American Federation of Labor, recently announced its support of a proposed transit fare increase being sought by the

Television Production Mounts

GENERAL ELECTRIC currently is turning out 10,000 television sets weekly, about four times the level a year ago. Board Chairman Philip D. Reed has said the present rate will be increased to an amount not now determinable.

In announcing the GE television program, Mr. Reed also said the company expects sales in the initial quarter of 1950 to equal those of the same period in 1949. He noted that this would be a "mighty good job" as the first quarter of 1949 was one of the best periods.

St. Lawrence Hearings Postponed

THE House Public Works Committee has announced that hearings on the St. Lawrence seaway and power project, originally scheduled to begin February 27th, have been postponed until April 24th. The committee said it plans to hear proponents for two weeks and then hear opponents for a like period of time. In announcing the postponement, Committee Chairman Will M. Whittington (Democrat, Mississippi) said there will be no occasion to repeat the testimony formerly given to the committee, inasmuch as the hearings in 1941 and 1947 were printed and are available to the committee.

Birmingham Electric Company. Officials of the labor organization said the union had changed its position after a strong case for the 10-cent fare was presented to a union gathering by members of the Street Railway Employees No. 725 and Brotherhood of Electrical Workers No. 1332.

District of Columbia

Electric Company Lends Coal

DURING two of the coldest days of the winter and while the bituminous

coal crisis was at its climax, the Potomac Electric Power Company voluntarily loaned 5,000 tons of its stockpile to officials of the District of Columbia for dis-

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tribution among those areas of the city where the fuel was most desperately needed.

At the time of the loan, District commissioners (governing body of the capital city) had put into effect a rather stringent coal rationing system with hospitals, or-

phanages, and like institutions heading the priority list. This had left some residential areas and dealers serving them without coal supplies. It was to take care of this segment that the power company offered fuel from its own supply, estimated at around fifty days.

Idaho

Telephone Rates Upped

AFTER a wait of nearly two years, the public utilities commission, by a 2-to-1 vote, has authorized an annual rate increase for the Mountain States Telephone & Telegraph Company totaling \$969,388, effective February 15th.

In ordering the increase, the commission noted that company witnesses contended the higher rates were necessary

because demand for telephone service in Idaho has increased company plant investment from \$11,301,000 on December 31, 1945, to \$18,124,000 on June 30, 1949.

H. P. Stommel, Idaho manager for the company, said action of the commission will permit continuation of an expansion program that would cost in the neighborhood of \$6,000,000 within a matter of two or three years.

Illinois

New Turbogenerator in Service

THE Public Service Company of Northern Illinois recently placed in service a new 107,000-kilowatt turbogenerator at its plant on the Illinois waterway, just south of Joliet, more than doubling the plant's capacity. Installation of the new unit, built by Allis-Chalmers Manufacturing Company, gives the station sufficient capacity to provide the electric requirements of a city of 225,000 population, according to Britton I. Budd, president of the company.

IPC Nears Goal

THE Illinois Power Company made big strides during 1949 toward its self-imposed goal of becoming a self-contained operating utility, supplying its

own electric generating requirements. In his recent annual report to stockholders, President Allen Van Wyck said that at the 1949 year end the company is now generating 74 per cent of its power needs, compared with only 9 per cent self-generated in 1946.

Two new 40,000-kilowatt generating units, scheduled to go into production at the Havana plant this spring, and a third unit set for operation at Wood River next October, will permit the company to generate 90 per cent of its power needs by the end of the present year.

Construction expenditures in 1949 totaled \$42,000,000, Mr. Van Wyck said, noting that they were by far the greatest in the company's history, and greater than any for any year in the foreseeable future. He added that 1950 expenditures are now estimated at \$25,000,000.

Indiana

Borrowing Authority Sought

THE public service commission has set March 17th as hearing date on

the petition of the Indiana & Michigan Electric Company for authority to make a bank loan of \$5,000,000 to help

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finance its current construction program.

Another petition to be heard by the commission during March is the request of the Southern Indiana Gas & Electric

Company that the commission lift its ban on the use of natural gas for space heating so the company could serve 1,500 new customers.

Iowa

Says TV Will Up Utility Load

TELEVISION will require about two and one-half times the wattage that radio now requires, according to J. W. Anderson, of Muscatine, a representative of the American Public Power Association. Speaking recently before the Iowa Association of Municipal Utilities, Mr. Anderson said that municipal utility plants will have to make preparations for this extra load within the next five years.

Wait Heads Utility Association

MERLAIN R. WAIT, of Coon Rapids, has been elected president of the Iowa Association of Municipal Utilities, succeeding Dr. T. G. Fultz, of Pella. Other officers elected for the ensuing year were C. C. Eklund, Brooklyn, first vice president; M. D. Geving, Sanborn, second vice president; Glen V. Yarger, Waverly, secretary-treasurer; and George Schwenneker, Osage, director.

Minnesota

Phone Rates Upped

TELEPHONE rates in 146 Minnesota cities, including Minneapolis and St. Paul but not Duluth, will be hiked 25 cents a month on April 1st bills for residential telephones, and 50 cents a month for business telephones. Excepted in the latter classification are "semipublic" business services.

Although quoted as asking an over-

all increase of 18.72 per cent, the Northwestern Bell Telephone Company was held down to the permitted figures which will, according to the public service commission, bring an over-all increase of 8.07 per cent.

The commission granted no increase in Duluth because, it said, the high operation cost there is caused by the company's failure to convert to dial operation.

New York

Asks Tax Relief for Bus Companies

A BILL to exempt bus companies from the gross income tax levied by the state at the rate of 2 per cent on the gross

income of public utilities has been introduced in the general assembly by Senate Majority Leader Arthur H. Wicks (Republican). A similar bill was vetoed last year by Governor Thomas E. Dewey.

Oklahoma

Gas Rate Hearing Planned

THE Federal Power Commission has announced it will start a hearing March 20th, at Bartlesville, on rate proceedings involving the Phillips Petro-

leum Company. Commission officials stated the hearing will be held to determine whether Phillips is a natural gas company within the meaning of the Natural Gas Act, and whether any of its rates, charges, or classifications are un-

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just, unduly discriminatory, unreasonable, or preferential in connection with any transportation or sale of natural gas subject to commission jurisdiction, including sales to Michigan-Wisconsin Pipe Line Company.

The commission said it recently received complaints from the public service commission of Wisconsin and the corporation counsel for the city of Detroit in connection with Phillips' sales to Michigan-Wisconsin.

Oregon

Grange Chief Backs CVA

MORTON TOMPKINS, master of the Oregon state grange, recently went on record as being in full support of a Columbia Valley Administration. Speaking before a convention of the

Oregon Farmers Union, Tompkins urged his audience to "close ranks" in support of their many common objectives, "including the CVA." He did not elaborate, but said that a CVA offered a unified plan of natural resources development for the Columbia valley.

South Carolina

Columbia Gets Hotter Gas

EFFECTIVE March 1st, the South Carolina Electric & Gas Company changed the heating value of gas supplied customers in the Columbia area from 540

BTU per cubic foot to 950 BTU per cubic foot. The public service commission granted the company authority to change its billing method to correspond with the higher heating value of the gas.

South Dakota

Compromise Public Power Bill Voted

AFTER rejecting the proposal of Governor George T. Mickelson to create a state power authority, a special session of the legislature has passed a consumers' power district bill, described by several members as a compromise that is almost futile.

The measure authorizes power dis-

tricts to be set up by majority elections in both urban and rural areas; enables districts to negotiate sale of bonds immediately after organizing; permits districts to acquire franchises of firms operating in their areas without special elections; bars districts from retail sales of power more than 12 miles beyond their established boundaries; and permits districts to embrace unlimited geographical area.

Texas

Intrastate Phone Rates to Be Investigated

THE house of representatives has adopted a resolution to find out whether long-distance telephone calls within the state cost more than similar calls across state boundaries.

Representative Bob Casey, of Houston, contends interstate tariffs under Federal regulation are less than on similar calls in unregulated territory.

In introducing his resolution, Casey said that he did not want a regulatory measure without first having an investigation.

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Virginia

Utility Tax Proposal Killed

LEGISLATIVE proposals to give all Virginia localities authority to levy taxes on public utility bills—gas, electric, telephone—have been killed by the finance committee of the house of delegates. The bill was one of several that had been proposed by an interim state tax study commission.

State Oil and Gas Board Established

THE house of delegates has passed and sent to the governor a bill to establish a state gas and oil board with provisions for regulation of oil well and natural gas operations within the state. The new body will exercise regulatory authority over exploratory and production activities within the state.

Retain Segregation on Carriers

THE house of delegates courts of justice committee, by an undisclosed executive session vote, killed a measure by Delegate Armistead L. Boothe of

Alexandria to abolish racial segregation on common carriers and establish a race relations commission.

Virginia laws governing intrastate travel require separate railway coaches for Negroes, while on busses and streetcars they sit in the rear of these vehicles.

Natural Gas for University City

CITY officials believe that an approved \$275,000 gas improvement bond issue election set for April 1st has paved the way for bringing natural gas into Charlottesville by early fall.

City Manager James E. Bowen, Jr., has been authorized to negotiate a contract for pipe necessary to construct a 14-mile line from the state's "University City" to the Virginia Gas Transmission Company's line at a point near Free Union.

It is believed that the condition of the city's artificial gas plant is such that a failure to obtain natural gas before next winter would involve serious risk of a breakdown in gas service, unless large sums are expended in plant reconditioning.

Wisconsin

City's Plans to Build Hydro Plant Killed

THE state public service commission recently rejected the application of the city of Spooner to build a hydroelectric plant on the grounds that the project would cost too much and would also "ruin" recreation facilities and scenic beauty on part of the Namekagon river.

The commission said cost of production of electricity at the project would be at least 1.82 cents per kilowatt hour, while the city can buy power from the Wisconsin Hydro Electric Company for 1.47 cents the kilowatt hour.

In summary, the commission noted that the city's proposal was not "economically justifiable," and that it would destroy a "unique form of fast-river fish-

ing that is rapidly disappearing in the state."

Says Co-ops Pay Fair Taxes

ATTORNEY GENERAL Thomas E. Fairchild recently told the Vernon Electric Coöperative's annual convention that co-ops pay their fair share of taxes. However, he did not give in any succinct detail his reasons for reaching this conclusion, saying only that members pay the tax "as part of their income."

Fairchild, who is running for the United States Senate, praised the REA for its work since 1936. He said that in 1935 only 10 per cent of Wisconsin farms were electrified, but that the percentage had grown to more than 90 under the aegis of REA.



Progress of Regulation

Return Allowance Must Be Supported by Evidence

ANY presumption that a 6 per cent rate of return is just and reasonable is a rebuttable one and cannot prevail when there is no evidence to support it. So said the supreme court of Vermont in reversing a rate order of the commission because of the absence of evidence on reasonableness of return.

The commission had found that newly filed rates were not just and reasonable. It found a rate base and decided that a return on the rate base of 6 per cent was just and reasonable. It fixed rates to produce that return.

Although a commission is not bound to the use of any single formula or combination of formulas in determining rates, said the court, it is not thereby relieved from the duty to disclose the method employed to reach the prescribed rates so that the validity of its conclusions may be tested by judicial review.

The president of the company had testified that a rate of return of 8.6 per cent was required for the company to carry on its business. He gave reasons

for his conclusions. Although the commission was not required to accept this figure as the rate of return to be allowed, its right to reject the 8.6 per cent return, said the court, did not obviate the requirement that there be substantial evidence on which to base the conclusion that a 6 per cent rate was just and reasonable.

An objection that the company had not raised the question of confiscation was disposed of with the statement that this was not necessary to test the validity of the findings. The commission is required by law to fix reasonable rates. Such rates are dependent in amount upon the rate of return. Thus the statute, in effect, guarantees that rates shall be just and reasonable in fact and in law and by necessary implication gives the same guaranty as to the rate of return on which rates are based. The company could insist upon this right without claiming confiscation. *City of Newport et al. v. Newport Electric Division of Citizens Utilities Co. (No. 1759) 70 A2d 590.*



Base Rate Telephone Areas Need Not Conform With City Limits

THE Arkansas commission, after an investigation of the policy of Southwestern Bell Telephone Company in establishing and revising base rate areas, concluded that it would be unsound regulatory procedure for the commission to require the company to make its base rate areas conform to corporate limits in all cities.

The question of what territories should

be included within the initial or base rate area has been the subject of continuous evolution for years. Even early tariff arrangements were made with a view toward requiring subscribers whose stations were located beyond the densely populated areas to absorb the additional cost of service. Although the base rate area has often coincided with corporate limits, this has not been universally the

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case, said the Arkansas commission.

The company has recognized that occasionally a municipality may permit the annexation of territory which is sparsely populated. In such cases, application of the company's "density policy" has compelled a divergence between the base rate area boundary and the corporate limit boundary. Likewise, in some cases, municipalities have failed to annex contiguous territory which was densely populated. When that situation developed, the application of the "density policy" required the inclusion of the territory within the base rate area even if it was not within the corporate limits.

The company had been following the practice of billing subscribers retroactively for a mileage charge when an error was discovered. Likewise, when a sub-

scriber was found to have been erroneously billed for a mileage charge, the company had refunded the overpayment. The commission disapproved of retroactive billing. It said that the burden should be upon the company to bill subscribers for such mileage charge as may be owed at the proper time, or at least within a reasonable period thereafter. It was said to be unreasonable to expect a subscriber to determine whether he owed a mileage charge or not.

The commission decided that the company should make no retroactive billings for mileage charges on a date more than thirty days after such charges accrue, unless failure to render the proper billing is due to the wilful misconduct of the subscriber. *Re Southwestern Bell Teleph. Co. (Docket No. U-412).*



Pipe-line Company Partially Reimbursed for Expense of Distributing Impounded Funds

THE United States Court of Appeals ruled that the Panhandle Eastern Pipe Line Company was entitled to be partially reimbursed out of undistributed revenues of an impounded fund for the expenses incurred in distributing the fund to ultimate consumers. The fund had been impounded under an order staying a rate reduction order of the Federal Power Commission. The court believed that it had the power to provide for the reimbursement if that was the equitable and just thing to do.

The court stated that, in granting a stay order in a rate case, it is sound judicial policy to require the company seeking it to pay all of the necessary expenses of distributing the impounded fund, if that becomes necessary. But the justification which the company had for challenging the rate reduction order, the harm resulting from the granting of the stay, the reasonableness of the expenses imposed upon the company, and the ability of the company to pay them without undue hardship, were some of the factors considered in determining the propriety of providing for reimbursement.

The court stated that it must be re-

membered that commission orders are clothed with a presumption of validity and that the granting of stays of rate reduction orders should be the exception rather than the rule. A utility challenging such an order, when it applies to the reviewing court for a stay and asks that rates found to be excessive be kept in effect, takes a calculated risk. It should be prepared, if it loses, to bear at least some substantial portion of the costs and expenses resulting from the stay. The court concluded that, while it would not be justified in granting the company's motion for complete reimbursement of the expense of distribution of the fund to ultimate consumers, it would be equitable and just to lessen the burden of expense to some extent. It allowed one-half but not full reimbursement.

Circuit Judge Riddick dissented on the ground that the equities in favor of the pipe-line company required full reimbursement. He believed that to award less than all tended to impose upon the pipe-line company a penalty for having resorted to the court for final determination of the validity of the Federal Power Commission order which was said to be

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questionable at the time it was made.

Judge Riddick thought this would be particularly unfair since the rights of all who claimed or who became entitled to share in the fund had been fully satisfied free of expense or charge. He felt that the company should at least be al-

lowed reimbursement for its full expense of distribution to the ultimate consumers, although it had no equitable right to reimbursement for the expense of impounding and managing the fund. *Panhandle Eastern Pipe Line Co. et al. v. Federal Power Commission et al.*



"Pay As You See" Television Approved for 90-day Test

THE Federal Communications Commission granted a broadcasting company's application for authority to conduct "Phonevision" tests on a limited commercial basis. "Phonevision" is a system of subscription television in which television set owners receive first-run movies on their home receivers.

A jittery picture transmitted from the studio and capable of being picked up on any television set can be unscrambled and received the same as other television broadcasts by requesting the telephone operator to allow the key signal to reach the set. As soon as the request is received at the telephone exchange and the key signal is sent out, the picture becomes clear.

A charge, tentatively established at one dollar, for this service is added to the subscriber's telephone bill.

The majority of the commission approved the petition, provided that the service was limited to 300 subscribers in the Chicago area. The commission expressly reserved the right to decide at a later hearing whether "Phonevision" was in the public interest and whether it was a broadcast service, a common carrier service, or some other classification.

The commission instructed the radio corporation to avoid any action which might create the impression in the mind of any person or persons that the service had been authorized on a regular basis or that the fact that the commission had ap-

proved the test indicated that the principle of "Phonevision" or subscription television had been subscribed to.

Commissioner Webster, in dissenting from the majority opinion, pointed out that these tests, despite their limited nature, may be the first step toward the introduction of subscription television and radio into the traditional American system of free broadcasting. He contended that a public hearing should be had before the first move toward a change in this system is taken.

A second objection to the proposal was based on the fact that the frequency to be used for the service was not available under commission rules for experimental broadcasting.

The commissioner continued by pointing out that in television as in radio the assignment of frequencies should be in accordance with a general plan and not on a case-to-case basis. He offered the mobile radio field as an example of what can happen if experimental authorizations are granted without public hearing and without considering over-all policy. In mobile radio, he said, new services have developed "like Topsy" in portions of the radio spectrum not necessarily best suited for final allocation to them. The approval of this application, the commissioner concluded, might be the first step in the development of the same situation in television. *Re Zenith Radio Corp. (KS2XBS) (Docket No. 9517).*



CAB's Revocation of Registration without Hearing Reversed

AN airline's petition for review of a Civil Aeronautics Board order sus-

pending its air carrier registration was granted by the circuit court of appeals

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for the District of Columbia. The board had suspended the carrier's registration without notice or hearing pursuant to a board regulation permitting "immediate suspension" and pursuant to the words "suspended or revoked at any time" which appeared in the letter of registration.

The court ruled that the CAB order was invalid as denying due process of law, since suspension would destroy the

investment and valuable business property of the carrier.

The court pointed out that the board's authority to suspend without a hearing was limited to emergencies affecting safety and that the government cannot make a business dependent upon obtaining a permit and then make an unconstitutional requirement a condition to the grant of the permit. *Standard Airlines, Inc. v. Civil Aeronautics Board*, 177 F2d 18.



Discontinuance of Trains Not Dependent on Other State's Decision

THE Colorado commission authorized a railroad to discontinue certain passenger trains which had been operated at a substantial loss in the preceding year, when it appeared that the loss would be greater in the present year.

A request by shippers that the commission suspend decision in the matter until the supreme court of another state decided an appeal from a decision of that

state's commission on the operation of the same trains in the other state was denied. The commission considered itself in no way bound by the decision of that court and declined to recognize its findings, since none of the evidence introduced in the other forum had been brought to its attention. *Re Chicago, B. & Q. R. Co. (Application No. 10097, Decision No. 34024)*.



License Fee Paid to Parent Telephone Company Allowed As Operating Expenses

THE Nevada commission, in prescribing increased telephone rates, allowed a fee paid to the parent telephone company under a license contract as an operating charge. The fee was equal to one per cent of the company's gross revenues. This allowance was protested on the ground that no evidence had been submitted as to the actual cost of the services furnished under the contract and that no payment in excess of the reasonable cost or reasonable value of the services should be allowed.

The commission, noting that the fixed-percentage-of-revenue basis for the license fee has been under fire for a number of years in many commission cases, stated that the time and expense of determining actual cost to the parent company of services rendered to its affiliate could hardly be justified. It recognized, however, that every telephone company requires men of skill in engineering, eco-

nomics, accounting, maintenance, and similar problems. Services from the parent company are the result of the most skilled men, with large staffs and a great fund of information on which to draw. It found that the fee involved was not excessive and that by reason of receiving these services the local company was relieved of employing all the men for the various skills required.

A ratio of one-eighteenth of operating expenses, exclusive of depreciation and taxes, was considered ample as working cash capital. It had been contended that in view of the large amount of accrued taxes which had been received from ratepayers, the company was entitled to no working cash in its rate base. The commission rejected this argument, stating that for it to condone such a practice might have a disastrous effect upon the company's operations in adverse times.

It pointed out that in order to carry on

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its business, the company was required to keep a minimum deposit in banks for wage payments, local agents' accounts, and general disbursements. These dollars, it said, are not fluid dollars that can be offset by tax money, since access to these funds is in the hands of others than just the treasurer of the company. He is responsible for keeping intact tax dollars collected.

The commission accepted a return of 6.4 per cent for a test period as being sufficient to allow the company a return for the future of 5.8 per cent. This was considered fair and reasonable. In arriving at this figure, the commission adopted the combination of 40 per cent debt ratio at 3½ per cent, and earnings on a capital stock structure at 8.5 per cent.

Commissioner Alfred Merritt Smith, in a dissenting opinion, said that while

the company was entitled to offset the violent additions to its costs and the substantial increase of capital invested to meet the postwar demand for service, it should be content with a lesser return. As conditions swing back to normal, he said, the company may again appear and ask for a readjustment of its rates. He noted that in no state has the full amount of increase been granted.

Commissioner Smith did say, however, that he would approve an increase in rates sufficient to relieve the company of the loss it claims to have suffered, plus an additional amount for a fair profit under existing conditions. This, he believed, could be accomplished by adjusting present rates to yield approximately 50 per cent of the monetary increase requested. *Re Bell Teleph. Co. of Nevada* (1&S Docket 112).

State Fails to Block Hydroelectric Project

THE state of Iowa unsuccessfully petitioned the United States Court of Appeals to reverse an order of the Federal Power Commission granting a power project license to First Iowa Hydro-Electric Cooperative. The contention that the commission acted improperly in failing and refusing to consider the laws of the state of Iowa was rejected. The court held that the Federal Power Act does not require the commission to compel an applicant for a power project license to produce evidence of compliance with all of the applicable laws of the state before a license may be granted.

While the commission may properly consider whether an applicant for a license can comply with state laws, if any, relating to a proposed power project, it is not compelled to do so. The commission may license the project and let the licensee take his chances of being able to comply with state laws, or such of them as have not been superseded by the Federal Power Act.

The order granting the license was claimed to be invalid because the project was not shown to be economically feasible. The court pointed out that the com-

mission concluded that there would be an adequate market for power produced by the project at prices sufficient to insure successful operation. In the Federal Power Act itself there is no express prohibition against the issuance of a license to an applicant who is not financially responsible, or to one who has no firm commitment for the sale of power or for financing of the cost of the proposed project.

The court said that while it believed Congress did not intend that licenses should be issued to those whose securities, issued to finance a project of doubtful feasibility, would be likely to work a fraud upon purchasers, it gave the commission a broad discretion in dealing with the question of economic feasibility of a project and the soundness of proposed plans for financing construction.

The commission had previously condemned the financing of the entire cost of power projects by the issuance and sale of bonds. The court disagreed with the commission in respect to the economic feasibility of the project and the soundness of the proposed plan of financing its construction, but said that

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would not give it the right to vacate the order. The court may not retry the controversy and substitute its judgment for

that of the commission as to doubtful questions of fact. *Iowa et al. v. Federal Power Commission*, 178 F2d 421.



Federal Commission Reasserts Power to Adopt Service Curtailment Rules

OBJECTIONS to an order of the Federal Power Commission prescribing rules for curtailment of natural gas service by Panhandle Eastern Pipe Line Company, because of inadequacy of the supply, have been overruled by the commission.

One objection was that the commission lacked authority, under §§ 4 and 5 of the Natural Gas Act, to prescribe rules and regulations which affect or change the terms or conditions of Panhandle's rate schedules or its contracts with customers. The commission referred to its earlier decisions and to court decisions and then concluded that it had ample authority to prescribe just and reasonable service rules and regulations to govern deliveries of natural gas from the system of a natural gas company during periods of shortage.

Objectors also contended that the commission erred in considering the increased volumes of gas which had become available to the Ohio Fuel Gas Company and the East Ohio Gas Company from sources other than Panhandle, in ordering curtailment of large industrial loads served by these companies. The commission decided that consideration of such supplies was appropriate and proper. There was said to be ample warrant in

the law for the commission to give consideration to the availability of gas from all sources in prescribing service rules and regulations for a single pipe-line system.

A contention that the prescription of service rules and regulations requiring curtailment of large industrial loads constituted an invasion of the authority reserved to local bodies was said to be without merit. The commission made the following statement:

Section 1(b) of the Natural Gas Act specifically gives the commission jurisdiction over the sale of natural gas in interstate commerce for resale for industrial use. The rule of law that third party relationships may be affected by public utility regulation is too well established to require extended argument. A reference to the many decided cases amply demonstrates that the contention that the commission has exceeded its jurisdiction is without foundation. See *Ambassador, Inc. v. United States* (1945) 325 US 317, 324, and also the many cases cited footnote 3, page 323, 58 PUR NS 193, 197.

Re Panhandle Eastern Pipe Line Co. (Docket No. G-1240).



Sale of Electric Facilities Approved Despite Municipal Protest

THE Federal Power Commission authorized an electric company to sell its facilities to another electric company although the mayor of a town argued that the sale of the facilities to the town would be more in the public interest. The company purchasing the facilities would merge them with existing equipment. The commission thought that the pro-

posed sale and merger would result in improved service at reduced rates and would be consistent with the public interest.

The mayor's protest and request to intervene did not deny that the proposed transaction was in the public interest but merely alleged that the sale to the town would be more in the public interest. The

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town wanted an opportunity to present evidence of a financial and engineering nature to support its contention.

The commission held that allegations regarding a possible alternative and better transaction are irrelevant to the de-

termination of whether or not the transaction would be consistent with the public interest. Accordingly, it overruled the protest and dismissed the petition to intervene. *Re Louisiana Power & Light Co. et al.* (Docket No. E-6246).



Rates Inadequate to Meet Interest and Dividend Needs

THE Kentucky Court of Appeals reversed a commission decision denying a telephone company a rate increase where the record indicated that findings were not supported by the evidence.

The court pointed out that a comparison of the sum of money represented by the utility as necessary to satisfy its in-

terest and dividend requirements with its operating income as finally computed by the commission made it clear that the rates would not provide sufficient funds to satisfy financial obligations. *Lexington Teleph. Co. v. Public Service Commission et al.* 224 SW2d 423, reversing (1948) 75 PUR NS 1.



Stock Value Measured by Future Earnings In Holding Company Simplification

THE United States District Court granted the application of the Securities and Exchange Commission for approval and enforcement of a plan for dissolution of the Niagara Hudson Power Corporation upon consolidation of its principal subsidiaries. The commission, in determining the investment value of stock in the holding company to be replaced by new stock under the plan, was held to have properly considered prospective earnings and future value.

The court said that the commission, in its enforcement policies of the Holding Company Act, should not be hampered in its determination of the proper type of holding company structure by consideration of the avoidance of harsh effects on various stock interests which might result from enforcement of charter provisions of doubtful applicability. Substantial evidence upheld the commission's action. *Re Niagara Hudson Power Corp. et al.* 86 F Supp 697.



Modification of Holding Company Dissolution Order Refused

THE Securities and Exchange Commission denied a motion to modify an order requiring dissolution of a holding company found to serve no economic purpose or useful function with respect to its subsidiaries despite an improvement in the financial condition of the company, correction of the inequitable distribution of voting power, and elimination of the violation of the great grandfather clause. Changes of this kind were held not to alter the basic fact that the continued existence of the holding com-

pany would offend the policy and standards of the act. The commission also ruled that the fact that substantial tax advantages to the company and its security holders would be lost upon the dissolution did not justify continued existence of the company. These tax advantages could not take precedence over the requirements of § 11(b)(2) of the Holding Company Act, it was said. *Re International Hydro-Electric System* (File Nos. 59-14, 54-159, 54-160, 54-162, 54-164, Release No. 9535).

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Parcel Carrier Exemption Discontinued As Business Expands

A MOTOR carrier's request for a transfer of an exemption from minimum rate requirements was rejected by the California commission where the character of the service had changed substantially since the exemption was originally authorized.

The commission said that the exemption had been given the carrier's predecessor on a representation that transportation to be rendered was not the ordinary service of motor carriers but was of the nature of a parcel delivery service. This was no longer the case, the com-

mission continued, since the service had been so expanded that it no longer resembled the parcel carriers but was a general commodity transport service.

A continuance of the exemption from maximum rate regulation for the business as presently constituted, the commission concluded, would result in unfair competition and place other general commodity carriers at a serious disadvantage. *Re Rates, Rules, Regulations, Charges, Allowances, and Practices of Common Carriers (Case No. 4808, Decision No. 43602).*



Other Important Rulings

THE supreme court of New Jersey held that a municipality must act reasonably with respect to a water company's exercise of its legislative franchise to lay pipes and mains, since the legislature did not, by the requirement of municipal consent, design to vest in the

municipality authority to veto the legislative franchise giving the water company power to lay pipes beneath the surface of the streets and highways as it might deem necessary for its corporate purposes. *Hackensack Water Co. v. Ruta et al. 69 A2d 321.*

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Public Utilities Reports (New Series) are published in five bound volumes annually, with an Annual Digest. These Reports contain the cases preprinted in the issues of PUBLIC UTILITIES FORTNIGHTLY, as well as additional cases and digests of cases. The volumes are \$7.50 each; the Annual Digest \$6.00. *Public Utilities Reports* also will subsequently contain in full or abstract form cases referred to in the foregoing pages of "Progress of Regulation."

NEBRASKA STATE RAILWAY COMMISSION

Re The Lincoln Telephone &
Telegraph Company

Application No. 17832
December 22, 1949; January 13, 1950

APPPLICATION by telephone company to adjust rates and charges; increased rates in smaller amounts than requested authorized by Commission. Order amended, January 13, 1950.

Rates, § 146 — Reasonableness — Increased cost — Prices.

1. The Commission in fixing rates, besides giving full consideration to protests by farm telephone subscribers pointing to a decline in farm prices and increased cost of farm production since the last rate increase, must also recognize the increased cost to the company in providing service, a large part of which is due to the cost of labor, p. 34.

Return, § 16 — Right to earn.

2. The Commission must allow a fair return on the reasonable value of property used in rendering service, p. 34.

Return, § 111 — Telephone company.

3. Rates providing a telephone company with a return of 7.49 per cent on a net investment rate base were held to be more than sufficient to yield a reasonable rate of return, but a return of 6 per cent on an adjusted net investment rate base was held to be reasonable, p. 39.

Valuation, § 36 — Rate base determination — Net investment.

4. Cost of telephone plant and equipment less depreciation, plus materials and supplies and working capital, was used as the rate base of a telephone company, p. 39.

Valuation, § 317 — Working capital — Telephone company — Relation to operating expenses.

5. A working capital allowance, as part of the rate base of a telephone company, was arrived at by using the current formula being employed by the Federal Communications Commission, based on capitalizing one-twelfth of the estimated annual operating expenses, p. 39.

APPEARANCES: For the applicant: William I. Aitken, Attorney, Lincoln, and Richard W. Smith, Attorney, Lincoln.

For the protestants represented by counsel: George A. Skultety, Attorney, for Jefferson County Farmers Union, Harry McCord, and Will M.

Turner, Fairbury; Max A. Denney, Attorney, for the city of Fairbury, Fairbury; Joseph Ach, Attorney, for the city of Friend, and for the Chamber of Commerce of Friend, Friend; J. C. Hranac, Attorney, for the David City Commercial Club, David City; William F. Colwell, Attor-

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ney, for Pawnee City, and the Pawnee City Public Service Club, Pawnee City; Fred P. Komarek, Attorney, for the Hebron Chamber of Commerce and Civic Club of Hebron, Thayer County Farm Bureau, Thayer County Farmers Union, villages of Alexandria, Bruning, Carleton, and Davenport, city of Hebron, Nemaha County Farm Bureau of Auburn, and Arch Hosterman, Chairman, Hebron; John Jacobson, Attorney, for the city of Lincoln, Lincoln; Arthur A. Whitworth, Attorney, for the city of Lincoln, Lincoln.

For the Commission: Bert L. Overcash, Assistant Attorney General of Nebraska, Hugh W. Cargo, Chief Engineer, and Keith W. Vogt, Chief Accountant.

By the COMMISSION: This is a proceeding instituted by The Lincoln Telephone and Telegraph Company, a corporation, applicant herein, for authority to adjust its exchange rates, message toll rates, and charges for telephone service in the state of Nebraska.

The applicant filed its application in this proceeding on June 11, 1949, and thereafter, following notice, public hearing was duly held before the Commission on July 14, 1949, to July 16, 1949, inclusive. Thereupon the hearing was recessed at the request of protestants and was resumed on September 15 and 16, 1949. Upon order of the Commission, on October 6, 1949, certain additional protestants were heard after which the matter was taken under advisement.

Written protests were filed by the Jefferson County Farmers Union, Harry McCord, Will M. Turner, city of Fairbury, Hebron Chamber of

Commerce, city of Hebron, Thayer County Farmers Union, Nemaha County Farm Bureau of Auburn, and the villages of Alexandria, Bruning, Carleton, Davenport, and Milford.

Certain motions of protestants made before and during the hearings herein were overruled as shown by the file and record of this case. At the conclusion of the evidence certain protestants renewed their motion as to exchange classification. The exchange classification provided in this order adjudicates this motion and all other issues as to the classification of exchanges.

[1, 2] A number of protestants appeared without counsel, particularly the Nebraska Farmers Union and members of local farmers Union Groups from Seward, Polk, and Saunders counties. Also appearing were members of Goehner Grange, 371 Seward county, the Stockton Farm Bureau Unit of Walton, and other individual farmers appearing for themselves. Most of the testimony of farm groups and farmers was relative to the decline in farm prices and increased costs of farm production since the last rate increase.

The Commission has given full consideration to these matters but must also recognize the increased cost to the applicant in providing telephone service, a large part of which is due to the cost of labor. Numerous court decisions could be cited which make it mandatory upon the Commission to allow a fair return on the reasonable value of the property used in rendering service.

Some of the protestants offered evidence concerning the so-called "free service" to other exchanges. The

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over-all question of "free service" was fully covered in a prior order of the Commission. Individual and community problems in this connection are under constant observation and, where possible, solutions are being provided in accordance with the provisions of the previous order.

The evidence in the hearing resulted in 721 pages of transcript and 67 exhibits, and testimony was heard from forty-six witnesses.

The applicant is a corporation, with its principal executive office in the city of Lincoln, Nebraska, and furnishes a general telephone communication service at 125 central offices, 4 of which are in Lincoln, which serve 141 cities, towns, and communities in the 22 counties of southeastern Nebraska. As of April 30, 1949, the applicant owned 97,403 telephones in service and rendered switching service to 568 non-owned telephones. It then owned and operated 27,000 miles of toll lines comprising approximately 700 toll circuits and had 1,504 employees, with a current annual payroll of approximately \$3,750,000.

The telephone service furnished by the applicant in the state of Nebraska is furnished under rates, rules, and regulations as prescribed by this Commission. The books and records of applicant are kept in accordance with the accounting rules and regulations of the Federal Communications Commission, which have heretofore been approved and adopted by this Commission for all Class A telephone companies operating in Nebraska.

From December 30, 1947, to April 30, 1949, the applicant has added in net amount to its telephone plant and equipment a total of \$4,164,914,

which is an increase of approximately 28 per cent. Notwithstanding the added plant and facilities during the period, the applicant is not able to fully meet current service demands. Applicant's vice president testified that there was need to provide a minimum of more than \$7,000,000 of additional investment in plant, equipment, and facilities within a 3-year period, and that new capital would have to be obtained from investors in connection with the financing of such requirements.

Since April 30, 1947, applicant has issued and sold \$3,000,000 principal amount of additional first mortgage bonds, which brings its total funded debt to \$6,500,000. Applicant has also issued and sold 15,000 shares of its common stock for \$300,000, or a total of \$3,300,000 of additional securities.

In addition to the increase in the plant accounts of the applicant, and the additional capital provided for the business through the sale of securities, there has been a substantial increase in expense of operation. Following extended negotiations with the union representing employees, the applicant entered into a new wage agreement effective November 1, 1948. The effect of this wage agreement was to increase wage payments, and associated wage expense for pension accruals, benefit payments, and social security payroll taxes on the basis of the number of employees as of April 30, 1949, in the total amount of \$247,047 annually. This would bring the annual wage payments and associated wage expense to \$4,022,629 for the year 1949, assuming no change in number of employees, based on a pro-

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jection of the results of operation for the first five months, as compared with \$3,335,331 for the year 1947. Prices to the applicant at its Lincoln warehouse of materials, equipment, and supplies, which constitute the principal items used in the telephone business have generally increased during the period from April 30, 1947, to April 30, 1949. The evidence of price changes since April 30, 1949, as to telephone materials and supplies did not indicate any material change although the general trend in prices has been downward for some months, and protestants offered evidence of some decline in prices of telephone supplies, and the material decline in agricultural prices. The cost of new construction continues to require substantially more dollars per unit of plant added, as compared to the cost of the units of plant which are replaced, notwithstanding such price reductions.

In addition to the applicant's funded debt, consisting of first mortgage bonds in the principal amount of \$6,500,000 bearing interest at the rate of 2.75 per cent, applicant, as of April 30, 1949, had outstanding \$185,959.06 in principal amount of notes payable, \$6,800,533.33 issue price of preferred and common stock and \$1,030,997.57 of surplus or a total of capital obligations of \$14,517,489.96. The relation of funded debt to the total capital obligations has risen from 30.6 per cent in 1942 to 44.8 per cent as of April 30, 1949. The treasurer testified that the applicant was disbursing approximately \$175,000 per month for additions to plant and equipment, and that as funds are required in excess of cash balances, arrangements are made with commercial

banks for temporary cash loans, with the understanding that they will be repaid with the proceeds of additional capital securities to be issued and sold by applicant. The applicant's treasurer further testified that funds required for completion of the pending construction program will be provided through the sale of shares of common stock, preferred stock, and long-term bonds. The applicant contends that such additional capital cannot be attracted to the business without an improvement in earnings through increased telephone rates.

The book cost of applicant's telephone plant and equipment as of April 30, 1949, including plant under construction, and property held for future use, was \$18,953,352.49. The property held for future use consisted of six items, all being land on which the applicant is now erecting structures or contemplates doing so within a reasonable period of time. More than 60 per cent in dollar value of such land as of the date of the hearings was in actual use or being built upon. The total of such property held for future use is \$19,620 as of April 30, 1949. The telephone plant under construction as of said date was \$544,347.22, which included as principal items: central office building in course of construction at Hastings, Nebraska, central office equipment in process of installation at several exchanges, cable plant under construction at various points, and other construction. A considerable portion of such construction was in service at the date of the hearing, and all of such items will be in service within one to thirteen months following April 30, 1949.

The applicant had materials and

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supplies on hand as of April 30, 1949, in the amount of \$981,608.08, located in company warehouses, pole yards, and central office storage places. The applicant has no supply agent to warehouse supplies and has found it necessary to carry a larger dollar inventory of materials and supplies as compared to prewar years due to the higher prices, and because of the substantial growth in plant and in number of telephones to be serviced. The plant has grown from \$12,865,414 as of December 31, 1940, to \$18,953,352 as of April 30, 1949. While the materials and supplies account is larger during periods of construction activity and plant expansion, such excess represents principally items of plant which will soon be evidenced in the plant accounts.

The applicant claimed working capital as of April 30, 1949, in the amount of \$618,547.70, consisting of (1) cash of \$433,198.39, (2) employees' working funds of \$19,805, (3) prepayments made in advance of \$70,104.11, and (4) the net amount billed and remaining unpaid for toll and other telephone service already rendered of \$95,440.20. In determining this latter amount of unpaid accounts, totaling \$95,440.20, the applicant has deducted from the total of its accounts receivable of \$395,936.91 as of April 30, 1949, the amount of advance billings made to customers of \$300,496.71. The applicant offered evidence of the above items (1 to 4 inclusive) of working capital actually used in the business for the 1940-1949 period to April 30, 1949, which shows an annual average of such working capital of \$757,055. The applicant's treasurer testified that in his judgment the

amount of such working capital reasonably required under normal operations was not less than \$718,648, which is approximately \$100,000 greater in amount than the amount as per books on April 30, 1949, of \$618,547.70.

The applicant offered evidence of several valuations of its property to measure the reasonableness of the net income expected to be received under the rates and charges applied for.

The evidence presented as to the net operating income of the applicant under the present rates and charges was based upon the applicant's operations during the six-months' period commencing November 1, 1948, and ending April 30, 1949, and projecting such operations for a twelve-months' period upon the basis of such six-months' experience. The operations of the applicant for the calendar year 1948 do not reflect the current level of operations for the reason that a general wage increase was made effective as hereinabove referred to on November 1, 1948, and, accordingly, the six-months' period of operation commencing November 1, 1948, is the first period which gives effect to the readjustment of wage expense on the current basis of operations. The actual results of the said six-months' period show a net operating income of \$360,325.71 which, projected for a full twelve-months' period, is \$720,651.42, or a return upon the book cost of the applicant's property, less depreciation reserve (other than transfers from surplus), plus materials and supplies and working capital (all as shown by the books of the applicant on April 30, 1949 totaling \$15,438,083), of 4.66 per cent.

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The proposed schedules of exchange and intrastate toll rates were developed on the system-wide basis of establishing telephone rates, and as to exchange rates follow the same group classifications as were previously adopted by this Commission.

The rates and charges for exchange and toll service as proposed by the applicant, when applied to telephone development as of April 30, 1949, and current volumes of business, reflect a total annual increase in gross revenues from exchange service of \$623,178, and a total annual increase in intrastate toll revenue of \$81,000. Such additional gross revenues would improve applicant's net operating income on an annual basis over the current level of earnings, heretofore referred to, by \$436,320.30 per year, and result in an estimated annual net operating income of \$1,156,971.72.

Based upon the several methods of evaluating the property of the applicant for the purpose of establishing a rate base and measuring the applicant's contemplated earnings under the proposed rates on the basis of a rate of return to the applicant, the following tabulation was submitted.

I. Reproduction cost of telephone plant and equipment as of April 30, 1949, less observed depreciation (15%)		\$27,143,134
Materials and supplies on hand as of April 30, 1949 ..	981,608	
Working capital as of April 30, 1949	718,648	
Rate Base	\$28,843,390	
Estimated net operating income under rates and charges applied for	1,156,971	
Percentage return on the above rate base	4.01%	

II. Reproduction cost of telephone plant and equipment as of March 1, 1941, plus cost of

net additions to plant to April 30, 1949, less observed depreciation (15%)	\$19,351,947
Materials and supplies on hand as of April 30, 1949	981,608
Working capital as of April 30, 1949	718,648
Rate Base	\$21,052,203
Estimated net operating income under rates and charges applied for	1,156,971
Percentage return on the above rate base	5.50%

III. Cost of telephone plant and equipment as per books on April 30, 1949		\$18,953,352
Materials and supplies on hand as of April 30, 1949	981,608	
Working capital as of April 30, 1949	718,648	
Rate Base	\$20,653,608	
Estimated net operating income under rates and charges applied for	1,156,971	
Percentage return on the above rate base	5.60%	

IV. Cost of telephone plant and equipment as per books on April 30, 1949, less observed depreciation of 15%		\$16,110,349
Materials and supplies on hand as of April 30, 1949	981,608	
Working capital as of April 30, 1949	718,648	
Rate Base	\$17,810,605	
Estimated net operating income under rates and charges applied for	1,156,971	
Percentage return on the above rate base	6.50%	

V. Cost of telephone plant and equipment, less reserve for depreciation as adjusted, as per books on April 30, 1949		\$13,737,827
Materials and supplies on hand as of April 30, 1949	981,608	
Working capital as of April 30, 1949	718,648	
Rate Base	\$15,438,083	
Estimated net operating income under rates and charges applied for	1,156,971	
Percentage return on the above rate base	7.49%	

Protestants object to the reclassification of the Fairbury exchange as proposed by the applicant from Group D, in the present schedule of exchange

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rates, to Group E in said schedule. Group D is a group which includes exchanges having from 1,001 to and including 2,500 connected telephones. Group E includes exchanges having from 2,501 to and including 5,000 connected telephones. At the date of the filing of the application the exchange at Fairbury had 2,503 telephones in service. Since the filing of the application and during the period of the hearing the telephones disconnected reduced the number connected at Fairbury to less than 2,500. It does not appear that the number of telephones at the Fairbury exchange is sufficiently stabilized or reasonably permanent to justify the reclassification of the Fairbury exchange from Group D into Group E as proposed by the applicant.

The protestants presented various calculations as to the net worth of the common stock of the company, the dividends paid thereon, and the earnings per share for the year 1948 as shown by the company's annual report to its stockholders received in evidence as protestants' Exhibit A. The overall return on the capital used by the applicant in its business during the year 1948, as indicated by applicant's Exhibit 18, was $7\frac{1}{2}$ per cent. The earnings of the applicant for the year 1948 do not reflect the full impact of the current level of wage expense for the reason that the general increase in wages did not occur until November 1, 1948. The current level of earnings on the capital used in the business is 4.9 per cent, which does not give effect to a substantial amount of additional operating expense which has developed since the filing of the application. These additional expenses, hereafter

discussed in detail, total a minimum of \$130,000, which will further reduce this return to approximately 4.4 per cent.

A witness called by the applicant represented a firm of bankers which has assisted the applicant in placing its first mortgage debt issues from time to time since 1915, has advised the applicant with reference to the raising of additional funds for the pending and contemplated construction program and has recommended the sale of additional shares of common stock. This witness testified that a reasonable rate of return depended upon the basis of valuation to be used as a rate base, and that if book cost less reserve for depreciation with an allowance for materials and supplies and working capital was to be used as the only measure of value, at a time when actual values greatly exceed this figure, a return of $7\frac{1}{2}$ per cent upon such base was necessary, and that any lesser rate of return could operate to prevent the company from securing the additional amount of common stock investment it needs to support its capital structure and to meet all service requirements.

[3-5] The Commission is of the opinion that the rates applied for by the applicant in the proposed schedules for exchange rates, together with the proposed intrastate toll rates which will provide a return on the net investment rate base of 7.49 per cent, as shown in applicant's Exhibit X, are more than sufficient to yield a reasonable rate of return upon the fair value of the property used and useful in providing telephone service.

It is apparent, however, that the applicant cannot continue to absorb

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the increased costs of operation without additional revenue. It is also, apparent that the applicant is engaged in necessary plant extension and construction to restore lacking margins in its property and to meet unfilled demands for telephone service. The applicant intends to seek additional capital for such purposes, and is incurring short-term bank indebtedness which will require refunding through the issuance and sale of its securities. The applicant will need additional revenue to earn a reasonable rate of return on its property to attract the capital necessary for such expansion and construction.

On consideration of the evidence herein the Commission is of the opinion and finds that a return of 6.0 per cent on an adjusted net investment rate base, as calculated herein, will provide applicant a fair and reasonable return on the fair value of its property devoted to public use.

The net investment rate base as claimed by applicant, per books, is \$13,737,827 plus materials and supplies of \$981,608, and working capital of \$718,648. These figures as of April 30, 1949, produce a total rate base of \$15,438,083. The analysis of the Commission reveals that the amount of \$718,648 for working capital should be adjusted to \$489,704.27 which represents a reduction of \$228,943.73 in the rate base.

The amount allowed for working capital is arrived at by using the current formula being employed by the Federal Communications Commission and is based on capitalizing one-twelfth of the estimated annual operating expenses which are \$5,876,451.28.

Under the circumstances and considering all of the evidence, the Commission hereby prescribes rates to produce the following result:

Prescribed Income Statement

Total Operating Revenue	\$6,922,331.00
Less Deduction for Fairbury Classification	9,231.00
Operating Revenue (revised)	6,913,100.00
Total Operating Expense	5,755,359.28
Addition due to Minimum Wage Law	70,000.00
Addition due to Increase in Occupation Tax	24,896.00
Addition due to Increase in Social Security Tax	16,196.00
Operating Expense (revised)	5,876,451.28
Operating Income (revised)	1,036,648.72
Operating Income	1,036,648.72
5.75% of \$15,209,139.33 (Rate Base)	874,525.51
Difference	162,123.21
Income Tax Adjustment:	
38% of \$162,123.21	61,606.82
38% of 61,606.82	23,410.59
Additional Net Income	38,196.23
5.75% of \$15,209,139.33	874,525.51
Revised Net Income	912,721.74
Rate of Return—6.0%	
Rate Base of \$15,209,139.33	
Income	912,721.74
Operating Revenue (revised) ...	6,913,100.00
Deduction	162,123.21
	6,750,976.79
Operating Expense (revised) ...	5,876,451.28
Deduction Due to Decrease in Income Tax	38,196.23
	5,838,255.05
Operating Income after Revision	912,721.74

The applicant has set forth a schedule of increased toll rates which will yield \$81,000 per year additional revenue. The Commission is of the opinion and finds that such schedule attached hereto and made a part hereof as Exhibit B [omitted herein] is fair and reasonable. The balance of increased revenue sufficient to yield the net telephone earnings above-mentioned is to be obtained by applicant

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from increases in exchange service rates. The \$81,000 from higher toll rates is included in the tabulation immediately preceding this paragraph.

The Commission takes further note that this proceeding has been instituted and considered in an inflationary period marked by many transitional economic developments. In the opinion of the Commission it is not believed that the level of wages, prices, and material costs, which have occasioned this proceeding, will be permanent in character. There is reason to expect that the applicant company will experience the benefits of lower price trends and will effect whatever adjustments in policy are indicated by the times.

For the purpose of reexamining the situation and considering the propriety of reviewing rates as soon as such action is warranted, the Commission will maintain a current and continuous study of the matters involved and pertinent to this proceeding.

The Commission finds that the said modified and prescribed schedule of exchange rates and charges, together with the proposed schedule of intrastate toll rates, are fair and reasonable and will provide the applicant with no more than a fair and reasonable rate of return upon its telephone property. In making these findings, the Commission has considered the interest of the public by assuring adequate, efficient service at rates that are no higher than necessary to accomplish this objective. The Commission is of the further opinion that such exchange rates and charges and intrastate toll rates should be approved, an emergency is found to exist, to become effective temporarily on January 1,

1950, and finally on February 1, 1950, as provided by law.

The Commission further finds that said modified and prescribed exchange rates and charges and intrastate toll rates as herein approved should be identified as Exhibit A as to exchange rates and charges, and Exhibit B as to intrastate toll rates, both attached to this order and made a part hereof by this reference. [Exhibits omitted herein.]

Amendment

This amendment is instituted by the Commission to alter certain extended telephone service provisions included in the order in this case dated December 22, 1949, printed herewith. It will have the effect of preventing certain station rates, especially rural, from being automatically increased the minimum of 25 cents when an exchange elects to select extended service under the provisions of Paragraph (4) of 16831, Supplement 1, dated November 18, 1947.

The directive of this order is to withdraw and delete Paragraph (3) on Sheet 1 of Exhibit A of 17832, which states "When an exchange is reclassified to the next higher rate group because of extended service, the monthly rate for company-owned stations and service stations shall be increased not less than 25 cents per month per subscriber."

This deletion is made retroactive to January 1, 1950, restoring previously existing extended service provided in the order entered November 18, 1947, under Application No. 16831, Supplement No. 1, 71 PUR NS 129, which states as follows: "Where the subscribers of an exchange desire to call

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the subscribers of another exchange or exchanges without the payment of a toll charge, a petition signed by a majority of the subscribers of the exchange requesting the extended service may be presented to the company. If the request is approved by the Commission the exchange shall be classified in one group above the classification they would be in if they did not have the extended service."

The collateral provision of this order is to continue the regulation previously in effect which is found in Sec-

tion 1, Sixth Revised Sheet 3, of Extended Service of applicant's General Exchange Tariff. The expressed intention of this order is to make it clear that the 1949 proceeding under Application 17832 has no force and effect on the extended service provisions contained in Paragraph (4) on Sheet 1 of Exhibit A of Application 16831, Supplement No. 1, dated November 18, 1947, *supra*.

This amendment is docketed as Supplement No. 1, to 17832 and by this provision incorporated thereto.

GEORGIA PUBLIC SERVICE COMMISSION

Re Atlanta Gas Light Company

File No. 19367, Docket No. 9558-A
December 5, 1949

APPPLICATION by a gas company for authority to issue first mortgage bonds; rehearing on question of competitive bidding denied and application granted.

Security issues, § 112 — Competitive bidding — Petition for rehearing.

1. A petition, by a company dealing in securities, for rehearing of a case involving the sale of bonds was denied, although the petitioner urged that it would have made a firm commitment for the securities if it had been cognizant of the fact that their sale was being negotiated and also urged that at competitive bidding the net proceeds would be increased, where the issue and sale of the securities was properly advertised, the petitioner should have been aware of the sale, and the issuing company had committed itself to private buyers who guaranteed the minimum return to the company regardless of fluctuations of the security market, p. 43.

Security issues, § 80 — Purpose — Refunding — Construction — Security redemption.

2. Issuance of first mortgage 3 per cent 25-year bonds for not less than 100.88 per cent of the principal amount thereof, plus accrued interest at the date of sale, was authorized for the purpose of retiring and canceling outstanding 3½ per cent bonds, paying current short-term bank loans, and making further additions to a gas distribution system, p. 44.

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Security issues, § 29 — Powers of Commission — Competitive bidding.

Statement by Georgia Commission that while it thinks well of the competitive bid theory in the sale of securities by utility companies, there is a question as to whether or not it has legal authority to order such procedure, p. 44.

(McDONALD, Commissioner, dissents.)

By the COMMISSION: On November 7, 1949, Atlanta Gas Light Company filed an application with the Commission requesting authority to issue and sell \$7,000,000 principal amount of first mortgage bonds bearing interest at a rate of 3 per cent per annum, maturing in 1974, to sell said bonds at 100.88 per cent of their principal amount. The company will use the proceeds from the sale of the said bonds to call, retire, and cancel the \$3,428,000 of first mortgage bonds, 3½ per cent series, due 1973, to pay current short-term bank loans and will use the remainder of the proceeds to make further additions to its gas distribution system.

This matter was assigned for hearing on November 21, 1949, at which time it came on to be heard. At the direction of the Commission, Atlanta Gas Light Company caused notice of the time, place, and purpose of the hearing to be published in newspapers having most general circulation in the communities served by the company. Mr. Warren Moise, attorney for the company, appeared in support of the application, and no objection to the application was received by the Commission prior to or at the hearing.

[1] Subsequent to the hearing Halsey-Stuart and Company, Inc., filed a petition with the Commission asking for a rehearing in the matter based on the fact that the proposed private placement of these bonds is not in the

best interest of the applicant, its stockholders, and consumers, and that such interests would be better served by a competitive public offering of the proposed issue. The Commission was of the opinion that oral arguments should be heard and set the matter down for hearing on November 29, 1949, at which time Mr. Ralph Peterson appeared on behalf of Halsey-Stuart and Company and Mr. Warren Moise on behalf of the gas company. Mr. Peterson testified to the fact that his company was not cognizant of the fact that this issue of securities was being negotiated and that if it had been aware of this fact, a firm commitment for the purchase of these securities would have been made to Atlanta Gas Light Company prior to the original hearing. He further stated that at competitive bidding, Atlanta Gas Light Company would receive for its securities approximately \$125,000 more than it would have received at the proposed private sale, and that expenses in connection with the sale would be \$40,000 greater under competitive bidding, resulting in a net increase in proceeds to Atlanta Gas Light Company of approximately \$85,000. He further stated that this was the minimum amount which his company would guarantee Atlanta Gas Light Company but in all probability, of course, depending upon the fluctuations of the bond market, Atlanta Gas Light Company would re-

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ceive substantially more than the minimum guaranty by Halsey-Stuart Company.

Mr. Moise, counsel for Atlanta Gas Light Company, in reply to Mr. Peterson, stated that the sale and issue of these securities was properly advertised, that Halsey-Stuart Company should have been aware of the sale, and that the company had committed itself to private buyers, and felt a moral obligation to consummate the sale as originally specified in its application. He further stated that the upward trend in the security market was, in his opinion, the dominating factor which caused Halsey-Stuart Company to make its bid at this time, and that if the trend in the security market had been downward, this offer would not have been made. Mr. Moise further stated in his place that the New York office of Halsey-Stuart Company communicated with a member of the board of directors of the Atlanta Gas Light Company prior to the hearing and indicated that the firm was not interested.

While the Commission thinks well of the competitive bid theory in the sale of securities by utility companies, there is a question as to whether or not it has legal authority to order such procedure.

The Commission, after careful consideration of the testimony given, and the evidence adduced at the oral argument, is of the opinion that Halsey-Stuart and Company and its officials should have been aware of the sale of these securities before this time, and should have made their bid at an earlier date. It is also the opinion that the Atlanta Gas Light Company negotiated the sale of the securities in

good faith and that the purchasers guaranteed the minimum return to the company, regardless of any fluctuations of the security market, and therefore, denies the petition of Halsey-Stuart and Company for rehearing of the case.

[2] At the hearing the company introduced exhibits setting forth (1) cash requirements for utility plant construction for years 1945 through 1949 actual, and 1950 through 1954 estimated; (2) the cost to redeem outstanding bonds as of October 31, 1949 in the amount of \$3,428,000; (3) comparative statement of first mortgage bonds, and (4) comparative figures on gas utility bond offerings for 1949.

The company's witness testified that the securities would be purchased by the following insurance companies in the amounts indicated:

John Hancock Mutual Life Insurance Company	\$3,000,000
Aetna Life Insurance Company	1,650,000
Massachusetts Mutual Life Insurance Company	1,000,000
Connecticut General Life Insurance Company	1,000,000
Berkshire Life Insurance Company	250,000
Life Insurance Company of Georgia	100,000

The company also introduced a copy of the sales agreement and a copy of a second supplemental indenture to the Citizens & Southern National Bank dated November 1, 1949.

According to evidence adduced at the hearing and calculations made by the staff of the Commission, it appears that the debt ratio of the company will be increased from 43.4 per cent to 51.0 per cent in the event the proposed issue is authorized. According to a company exhibit, construction expenditures for the years 1945 through 1949

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amounted to \$10,041,121, and it is estimated that \$14,907,030 will be spent for utility plant construction in the period 1950 through 1954. Net bondable additions for the years 1948 and 1949 were \$6,013,605 and it is estimated that additions in 1950 will amount to \$3,821,530. The indenture of mortgage provides for issuance of bonds not to exceed in principal amount 60 per cent of the net bondable additions of \$4,782,139 as testified to by a company witness. This amount, together with \$3,428,000 of bonds to be retired, plus amounts to be deposited with the trustee, will not be greater than the issue allowed under the indenture of mortgage.

It was brought out at the hearing that the Atlanta Gas Light Company has a commitment from local banks for short-term loans of \$2,300,000, and that the company at the present time has outstanding a \$1,300,000 short-term bank loan and contemplates making an additional loan of \$500,000. The interest rate on these short-term bank loans is $2\frac{1}{4}$ per cent per annum. The company testified that these short-term loans would be repaid from the proceeds of the sale of the securities. It was also testified that the amount of expenses incurred in the sale of these securities would amount to \$22,500.

After careful consideration of this matter, it is the opinion of the Commission that the authority prayed for appears to meet the requirement of § 93-414 of the 1933 Code of Georgia, and should be approved. Wherefore, it is

Ordered that the Atlanta Gas Light Company be and it is hereby authorized to sell \$7,000,000 principal

amount of first mortgage 3 per cent series, 25-year bonds to the insurance companies hereinbefore named, for not less than 100.88 per cent of the principal amount thereof, plus accrued interest at the date of said sale.

Ordered further that no commission shall be paid to any broker or other person for the sale of said bonds.

Ordered further that Atlanta Gas Light Company shall file with the Commission a statement of actual expenses incurred in connection with the issuance of these bonds not later than ten days from the date of their sale.

Ordered further that short-term bank loans in the amount of \$1,800,000 be paid in full immediately upon receipt of proceeds from the sale of bonds.

Ordered further that Atlanta Gas Light Company call, retire, and cancel the \$3,428,000 of first mortgage bonds, $3\frac{1}{4}$ per cent series, due 1973.

Ordered further that the proceeds from the sale of these bonds shall be used for the purposes generally outlined in the application in this case, and for no other purpose.

Ordered further that jurisdiction over this matter is expressly retained for the purpose of entering such order or orders as the Commission may deem meet and proper.

MCDONALD, Commissioner, dissenting: I concur in the finding of the Commission that the authority prayed for meets the requirements of law and should be approved but it is my position that that authority and approval should be conditioned upon a requirement that the bonds be sold at competitive public offering of the proposed issue.

I am unable to agree that this is any

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question or doubt as to the statutory authority of this Commission to require competitive bidding in the sale of securities issues by and under its approval and I deem it to be the Commission's duty to make such a requirement in the interest of the ratepayer when it is clearly shown as it is in this

case that such a requirement would result in a definite saving of \$85,000 as a minimum and possibly more.

I therefore dissent to the majority opinion in so far as it denies the petition for reopening and fails to require the authorized securities to be sold at competitive public offering.

ARIZONA CORPORATION COMMISSION

Re The Mountain States Telephone & Telegraph Company

Docket No. 9981-E-1051, Decision No. 19196-A
November 4, 1949

PETITION by telephone company for authority to increase rates;
on rehearing, application denied.

Return, § 53 — Confiscation — Company failing to develop service.

1. The return of a telephone company is not confiscatory when it is adequate to pay all costs of operation, including depreciation and taxes, and the company is in addition earning more than enough to pay the state proportion of interest on bonded indebtedness, even though there is evidence that it is earning approximately 2 per cent on its intrastate investment, where the company has not made a reasonable effort to install sufficient plant, maintain existing plant, and correct service deficiencies, and has failed to maintain a reasonable standard of service, p. 47.

Return, § 36 — Reasonableness — Inadequacy of service.

2. A company cannot expect to receive a full return, or any more than enough to cover all expenses including interest on fixed indebtedness, until the company is in a position to render normally efficient service, since as a matter of law a utility is only allowed a full and adequate return when it is giving good service under efficient operation, p. 47.

(Brooks, Chairman, dissents.)

By the COMMISSION: In response to a request by the applicant dated August 9, 1949, a rehearing of the above-entitled matter was held on the 24th, 25th, 26th, 27th, and 28th days of October, 1949. The Mountain States

Telephone Company was represented by J. H. Shepherd; Assistant Attorneys General Joseph Ralston and Edward Jacobson appeared for the state of Arizona; Walter Roche appeared for the Bisbee Chamber of Commerce,

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and appearances were entered on behalf of Norman Wycoff for the town of Wickenburg, and Frank J. Barry, Jr., for the county of Santa Cruz.

Review of Evidence

Testimony was given at the hearing by seven company witnesses who introduced thirty-one company exhibits. Testimony was given by two witnesses called by the state and one exhibit was introduced. The transcript of testimony taken at the original hearing held in May and June of 1949 consisting of some 1,600 pages was introduced and made a part of the record on rehearing.

In addition to introducing the transcript of testimony taken at the original hearing, the company produced several witnesses and introduced a number of exhibits relating to matters covered by the opinion and order of the Commission dated July 29, 1949, and by such evidence sought to show that the proposed increases in its rates were justified.

The state presented testimony of one witness relating to inefficiency of management and one witness, a certified public accountant, hired by the Commission under an agreement with the company, who testified regarding accounting methods used by the company and introduced in evidence a report prepared by him of the results of his quick review of certain of the company's books.

It is unfortunate that this Commission is without funds to hire full-time accountants and engineers to make a complete independent investigation of the evidence presented by the company in its request for an increase in rates. The public as well as the company has

a vital interest in seeing that a fair, impartial, and proper determination be made. Under the circumstances it is impossible to know whether the company's figures are correct or incorrect without help from such experts.

ORDER

[1, 2] The record of the Mountain States Company in Arizona since the end of the war has been one of "too little and too late." The company made a serious error in its failure to anticipate the growth of this state and, although this mistake in planning was recognized by them almost three years ago, they have not as yet taken enough of the proper steps to remedy the situation.

The Commission is aware of the amounts spent by the company in adding new plant during the years since the war, but it believes and the undisputed facts show that these additions have not been nearly sufficient to give the people of Arizona the telephone service to which they are entitled and which the company under law is required to give. In contrast, however, it is noted that other utilities in this state have been able to solve their post-war problems by expending large amounts of money to increase their plant capacity and have done so without the necessity of an increase in their rates.

By order of the Commission dated April 7, 1947, the company was granted increases in its local service and intrastate toll rates which have resulted in a substantial increase in the revenues of the company. In addition to the increase in revenues resulting from such higher rates, the company

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since the war has experienced a considerable increase in revenues from the added new plant referred to above; and much of the added plant has also brought about a substantial reduction in operating costs.

Telephone service is no longer a luxury; like gas, electricity, and water it has become one of the necessities of life. For many persons the ability to make a living depends on adequate telephone service. By no interpretation of the facts can it be said that the service presently being rendered by the company is adequate. The record shows that there are as many persons waiting for service today as there have been in any of the years 1946, 1947, 1948. It also shows that over 15 per cent of all telephones in this state are on multiparty lines each attempting to serve ten or more users. The Commission takes judicial notice of the fact that this class of service is so completely unsatisfactory that it cannot be described as service.

The record in this matter further discloses that in certain localities the company has failed to maintain existing plant at such a standard as to render reasonably satisfactory and efficient service to its customers, although it has annually charged amply sufficient depreciation allowances to accumulate a reserve to make required replacements.

The company contends that they have done everything possible within the limits of their ability to get new capital and materials. We cannot agree. As an almost wholly owned subsidiary, the Mountain States Company has at its command financial resources of the American Telephone & Telegraph, a company which has,

in each year of the last twenty-five years, paid a \$9 dividend to its stockholders. The Mountain States Company, itself, had a higher earning per share in 1948, than it has had in the past fifteen years, except for 1939, which was only slightly higher, and higher earnings per share than all but two of the eighteen operating companies in the Bell System.

There is no evidence that the company has ever made any public offering of its stock in order to secure new capital, as is generally successfully done by other public utilities. There seems to be no good reason for the company's failure in this respect unless it be a fear that it might result in interference with the control of the company now exercised by the American Telephone & Telegraph Company.

From this record, how can it be said that this company or its parent company are unable to secure adequate financing to provide additional plant so urgently needed in the state of Arizona? By its own testimony the company acknowledges that demand for service and the percentage of persons waiting for service in the state of Arizona is much greater than that of any other state served by this company. The Commission daily is made aware of this situation by the tremendous number of letters and telephone calls received at its offices regarding unfilled requests for phone service, as well as complaints as to the impossibility of securing service on the existing 10- and 12-party lines. It is the belief of the Commission that this situation amounts to an emergency and, as such, immediate and effective action by the company should be taken to remedy the situation.

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Certainly the company cannot claim inability to procure the necessary equipment to do the job required, for it is a known fact, and the company so testified, that all equipment is purchased from the Western Electric Company, a wholly owned subsidiary of the American Telephone & Telegraph Company. The war ended four years ago. Shortages are a thing of the past in all competitive enterprises—a thing of the past in all regulated monopolies; with the apparent exception of the Bell Telephone System. If the Western Electric Company is unable to produce the material necessary, one would be forced to agree that there is merit to the government's antitrust suit now pending against this company in the Federal courts.

Only one conclusion can be drawn from this record; the Mountain States Company has failed to carry out its obligation to the people of Arizona. The Commission is not unmindful of the evidence presented by the company, that at the present time the company is earning approximately 2 per cent on its Arizona intrastate investment. It also recognizes that the proposed rates according to the company's evidence would bring a return on its investment of less than 6 per cent, calculated on the rate base proposed by the company. It is equally true, however, that the company, at present rates, is making a return adequate to pay for all costs of operation including depreciation and taxes and is, in addition, earning more than enough to pay the Arizona proportion of interest on bonded indebtedness. In view of the service record the Commission does not believe that the present return is

confiscatory or would be so considered by any court in the land.

The company has failed to keep pace with the phenomenal growth and development of this state as a result of its failure finds itself in a position of requiring large additions to its plant at a time when return on investment is low. Can we allow a utility to expect the ratepayers to assume all of the burden and save the utility from the result of its lack of foresight or enterprise? Until the company is in a position to render normally efficient service it should not expect to receive a full return or any more than enough to cover all expenses including interest on fixed indebtedness. As a matter of law a utility is only allowed a full and adequate return when the company is giving good service under an efficient operation.

Therefore, being fully advised in the premises, the Commission finds:

1. That the Mountain States Company has failed to keep pace with the growth of Arizona and as a result has failed to give the type, quality, or amount of service required by law.

2. That the service presently being rendered by the Mountain States Company is inadequate.

3. That the company has not made a reasonable effort to install sufficient plant or maintain existing plant to correct service deficiencies in the state of Arizona and has failed to maintain a reasonable standard of service.

4. That the return on investment shown by the company's record, while lower than that usually allowed an efficiently run utility giving good service, is, nevertheless, large enough to pay all expenses, provide sufficient moneys to pay the Arizona share of

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interest on bonded indebtedness and still provide additional return on investment over these amounts.

5. That until such time as the Mountain States Company is able to provide reasonably normal and reasonably efficient service in this state, they are not entitled to an increase in rates.

ORDER

It is therefore the *order* of this Commission:

1. That the application for an increase in certain rates is hereby denied.

2. That the company continues to file monthly operating statements.

3. That the company take immediate steps to provide adequate telephone service for all those waiting for such service.

BROOKS, Chairman, dissenting: I am compelled to dissent from the majority opinion in the case of the Mountain States Telephone and Telegraph Company request for increase in certain rates. Nearly ten months have elapsed since the company filed its application for an increase in rates. Hearings were held in May and June and the matter was then taken under advisement. On July 29, 1949, we issued an order denying the relief requested and the company filed an application for a rehearing which we granted. Thereafter an additional five days of evidence was received and the matter again taken under advisement. The transcript of the evidence will exceed 2,200 pages. Eighty-four exhibits were presented by the company, the state, and protestants, some of them being voluminous. To my knowledge the instant proceeding has

been the most completely presented and lengthy rate case ever to be heard by this Commission.

The following points, taken cumulatively, convince me the company is entitled to at least a part of the requested increase and that the increases are necessary in order to insure the continuity of the service and to insure the company's projected expansion and improvement program to take care of the present and prospective telephone users in the state of Arizona. Neither this nor any other forward-looking state can succeed and thrive without an adequate and dependable communication system.

1. The company's payroll in 1948 was six times that of 1940. Wage increases granted during and since the war nearly equal the total of the 1947 rate increase plus the company's 1949 request, based on October 1948 figures. Almost all of this payroll goes to employees located in Arizona. Thus it will be seen wage increases alone nearly offset the granted and requested rate increases without giving any consideration to the increased price of all other items going into the cost of furnishing telephone service.

2. The company's testimony shows that its investment in Arizona intrastate business has more than doubled since the end of World War II, that in 1948 alone more than \$10,000,000 was expended in construction work, that the construction programs are continuing. Even so, the company has been unable to catch up with the backlog of applications for new service, although there has been a net gain in telephone stations in Arizona of 18,364 within the past year, and has been unable to provide better classes

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of service for all those requesting one- and 2-party service. This Commission should do everything possible to see that the company corrects this service situation but, in my opinion, to deny immediate increases will hurt rather than help the situation.

3. On the matter of the rate base, the company put in evidence to show the intrastate investment on the basis of (1) the average investment, (2) the average investment less the average depreciation reserve, and (3) the present value. The only other evidence touching upon the matter of the rate base was introduced by the state, in which evidence and exhibits it was suggested that the average net investment should be used and that from the average net investment there should be deducted the construction work in progress and the cash working capital. Questions as to an exact rate base, however, appear unimportant in this case since on any rate base suggested, the company's request would result in a rate of return of less than 6 per cent, and in my opinion, regulated utilities cannot be expected to remain in a healthy condition and provide an adequate service unless they are allowed to earn a fair rate of return. Certainly an earning of anything under 6 per cent is not unreasonably high.

4. The Commission employed an independent auditor to check the company's figures. The Commission, being understaffed and without sufficient funds to do this work on its own account, obtained an agreement from the company that the expense of the auditor would be borne by the company. The auditor's report and his testimony showed that, although he

had but limited time in which to make his investigation, yet he found no cause to object to the company's book records or its system of accounts and he testified the operating results presented by the company disclosed fairly the investment, revenues, and expenses attributable to the Arizona business.

5. In opposition to the company, attorneys for two cities or chambers of commerce entered protests and followed the proceedings throughout in one or both of the hearings.

In addition there were other protestants, some of whom filed written protests and others appeared personally. The state was represented by the attorney general's office. I am satisfied the work done by the attorneys appearing for the state and other parties was sufficient to bring forward for analysis and discussion all of the pertinent facts. It appears that the company's 1949 earnings have been even less than in 1948 and that there is no evidence to indicate that whatever rate base we might choose to accept, the company has earned more than 2 per cent or slightly thereafter, during either 1948 or 1949 on the present rates. In failing to correct this situation, the majority opinion fails to carry out the constitutional and statutory requirements that just and reasonable rates shall be promulgated and enforced by this Commission.

6. I am not entirely satisfied with the company's suggested arrangement of the rate increases, but this becomes unimportant in view of the majority opinion. If the result had been otherwise, I would have recommended some changes in the rate schedules.

My purpose in entering this dissent

ARIZONA CORPORATION COMMISSION

is to make it clear that I, as one of the Commission, will always press to see that the public is adequately protected against unjust and unreasonable rates and that no utility operating in Arizona earns an excessive return. Yet, at the same time I am constrained to

say that we should not use our authority to force a utility to continue to render service at a rate that does not give a fair rate of return on the investment. To do so will retard the development of the state and provide inadequate and unsatisfactory service.

ARKANSAS PUBLIC SERVICE COMMISSION

Re Southwestern Gas & Electric Company

Docket Nos. U-407, U-408

December 12, 1949

APPPLICATION for authority to construct and operate transmission line; granted subject to conditions.

Certificates of convenience and necessity, § 73 — Condition — Rate base — Property used or useful.

A certificate authorizing the construction of a transmission line for the purpose of absorbing power and energy to be generated at a government dam, when negotiations for the power and energy are under way and no contract has yet been signed, should be conditioned upon the agreement of the company receiving the certificate that the cost of such facilities will not be placed in its rate base until their use for the absorption of the power from the dam or for some other equally feasible use is effectuated.

By the COMMISSION: On November 10, 1949, Southwestern Gas and Electric Company filed its application with the Commission for a certificate of convenience and necessity to construct, operate, and maintain a 66-kilovolt transmission line from the Narrows dam in Pike county, Arkansas, to Nashville, Arkansas, and from Nashville to DeQueen, Arkansas.

On November 10, 1949, Southwestern Gas and Electric Company filed its application with the Commission for a certificate of convenience and necessity to construct, operate, and

maintain a 66-kilovolt transmission line, together with necessary substations, from De Queen, Arkansas, to Mena, Arkansas.

On November 29, 1949, the Commission issued its order consolidating these two matters for hearing and setting them for hearing on December 2, 1949.

Testimony at the hearing showed that the applicant proposed to construct a 66-kilovolt line from Nashville to DeQueen and from DeQueen to Mena for the purpose of strengthening its facilities for the rendition of

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service in and around DeQueen and Mena, and that the prospective load growth in that area was such that these facilities would be required immediately in order that the company be able to maintain adequate service.

Testimony further revealed that the facilities to be constructed from Nashville through Murfreesboro to Narrows dam would be constructed for the purpose of absorbing the power and energy to be generated at the dam into the system of the applicant.

The Narrows dam, presently under construction by the U.S. Engineers, will be completed in the spring of 1950 and power and energy from that dam will be available at that time. The Southwestern Power Administration, an agency of the Department of Interior, has been designated as the marketing agent for such power and energy as will be available. Negotiations for the delivery of this power and energy to the applicant company are presently under way and, it was revealed at the hearing, the anticipated contract will be substantially patterned after the contract between the United States of America and Texas Power and Light Company, dated on or about the 7th of April, 1947.

It is apparent, from examination of the maps, load curves, proposed contracts, and other information filed by the company, that the absorption of the power and energy created at the dam could most feasibly be made through existing and proposed facilities of the applicant company. It is also apparent that negotiations for this absorption are well under way; however, inasmuch as the contract for this power has not been signed, the

Commission is reluctant to grant a certificate for the construction of the line, which would be used exclusively for the transmission of that power, without certain conditions to forestall the company from placing into its rate base facilities which would not be used or useful. Therefore, the Commission believes that the certificate for the construction of the 66-kilovolt line from Nashville to Narrows dam should be conditioned upon the agreement of the company that the cost of such facilities will not be placed in its rate base until their use for the absorption of the Narrows dam power or for some other equally feasible use is effectuated.

It is therefore *ordered* that:

1. Southwestern Gas and Electric Company be, and is hereby, granted a certificate of convenience and necessity to construct, operate, and maintain a 66-kilovolt line, together with appurtenant substations, from Nashville, Arkansas, to DeQueen, Arkansas, and from DeQueen, Arkansas, to Mena, Arkansas, as is set out on the map attached to the application.

2. Southwestern Gas and Electric Company be, and is hereby, granted a certificate of convenience and necessity to construct, operate, and maintain a 66-kilovolt line from Nashville, Arkansas, to Narrows dam, Arkansas, as is set out on the map attached to its application; provided, however, that the cost of the line and related facilities will not be placed in the rate base of the company until such a time as the power and energy generated at Narrows dam is delivered to Southwestern Gas and Electric Company or the facilities, as constructed, become useful for some other purpose.

Re Winter Park Telephone Company

Order No. 1576, Docket No. 1683
December 28, 1949

APPPLICATION for authority to increase telephone rates; rate increase authorized.

Return, § 26 — Reasonableness — Legal interest rate.

1. The fact that the legal rate of interest is 6 per cent regardless of whether the venture requiring the interest is safe or perilous can be considered in determining a rate of return, although it is not controlling, p. 58.

Return, § 22 — Reasonableness — Attraction of capital — Cost of money.

2. Elements considered in determining a rate of return for a public utility include general economic conditions, ability of the utility to attract capital, current cost of money, financial history of the utility, and efficiency of management, p. 58.

Return, § 111 — Telephone company.

3. Rates yielding a return of 6 per cent were considered fair and reasonable to maintain a telephone company's credit, p. 58.

By the COMMISSION: On June 20, 1949, the Florida Railroad and Public Utilities Commission entered its Order No. 1548 in the above-numbered docket denying the application of Winter Park Telephone Company, hereinafter sometimes called applicant, for an increase in its general schedule of exchange rates and charges for telephone service. Among other things, said order recites and provides that: "The record herein is extremely unsatisfactory and the Commission is loath to grant or deny the proposed increases on the present state of the record because of the many errors which have been discovered. However, the application will be disposed of on the present record without prejudice to applicant's right to initiate such

further proceedings as it may determine to be advisable."

Subsequent to the entry of said order applicant filed its petition to reopen this proceeding for the taking of further testimony. Said petition was granted and on October 5, 1949, pursuant to formal notice, a public hearing was held by the Commission in its hearing room in Tallahassee, Florida, for the purpose of taking additional testimony on the aforesaid application.

At said hearing the following appearances were entered: M. W. Wells, Orlando, for applicant; Lewis W. Petteway, General Counsel, Fred Pettijohn, Director Commerce Department, S. R. Ryan, Director Communications Department, and Fred

RE WINTER PARK TELEPH. CO.

Romig, Accountant, for the Commission.

No one appeared at said hearing in opposition to the proposed increases. And no one appeared in opposition at the previous hearing at Winter Park, Florida, which resulted in the aforesaid order.

Winter Park Telephone Company is a Florida corporation engaged in furnishing both local and long-distance telephone service to Winter Park, Maitland, Altamonte, Casselberry, and Longwood in Orange and Seminole counties and the area between such communities. No toll charge is made on calls between the communities served by applicant—in fact, applicant maintains no toll line facilities other than those necessary to connect with the toll line plant of Southern Bell Telephone and Telegraph Company at a point in close proximity to the central offices of applicant at Winter Park. Except for the original connection by the Winter Park operator, all long-distance calls from the Winter Park area are handled completely by the operator of Southern Bell at its Orlando toll center. Applicant's investment in plant and equipment used exclusively for toll purposes is very small as compared to total plant investment and that part of its exchange plant used for toll purposes is considerably smaller than is justified by the toll income. A precise separation of toll and exchange investments, revenues and expenses would reflect not only an abnormally high return on toll operations but also a misleading picture of low returns from exchange operations. Therefore, the Commission has considered applicant's toll and exchange operations as

a whole and has not required a separation study.

Applicant's operations have expanded and grown during recent years. Undepreciated investment in plant and equipment increased from \$226,515.36 in 1939 to \$550,017 on December 31, 1948, and to \$858,107.44 on June 30, 1949. Enhancement in such investment between the last two dates was due primarily to the installation of a dial system which was cut into service on May 14, 1949. On July 30, 1949, such system consisted of 2,244 residence, 583 business and 788 extensions, or a total of 3,615 telephones. This was an increase from 1,311 telephones in 1939. Since the inauguration of the dial system applicant has been able to offer its subscribers extended scope service whereby for an additional monthly charge the subscriber may dial any station in the Orlando exchange of Southern Bell. For ten years applicant has enjoyed a steady advance in both exchange and toll revenues but during that time wages, cost of materials, taxes, and other operating expenses have likewise increased. Applicant's present rates and charges were authorized by the Commission in 1930. In 1934 some reductions in such rates and charges were approved but applicant's basic rates and charges have not been changed since the latter date. And so it is that applicant has made application for an increase in its general schedule of exchange rates and charges.

Applicant has founded its proposed rate base upon its estimates of average plant investment and average reserve depreciation for its fiscal year ending June 30, 1950. Such investment is

FLORIDA RAILROAD AND PUBLIC UTILITIES COMMISSION

stated to be \$893,414.60, and such depreciation is given as \$100,013.82 for an average net plant investment of \$793,400.78. Two per cent of the latter sum, or \$15,868.02, is requested as working capital, thus giving a total estimated rate base of \$809,268.80.

In its Order No. 1548 the Commission observed that the rate base then proposed by applicant was unreasonably high and that many errors were found in applicant's exhibits. But applicant seems to have taken these observations lightly. Again its rate base is unreasonably high. Once more unacceptable mathematical calculations are manifest in applicant's case.

For examples: Applicant has estimated on its Exhibit 18 that at its present rates its exchange revenues

will increase to \$154,849.78 for the fiscal year ending June 30, 1950. As can be seen from applicant's Exhibit 21 this figure was computed by taking the average constructed stations in 1948-1949, arriving at the average exchange figure per station and then multiplying this by the estimated average constructed stations for 1949-1950. But by taking the actual and known stations in service at June 30, 1949, and computing the exchange revenue plus the revenue from new services which are expected to be installed in 1949-1950, we obtain a total of \$168,047.30, or \$13,197.52 more than the amount estimated by applicant. Our construction of new revenue on present rates is as follows:

Stations in service at 6-30-49	\$148,116.30
Constructed New Revenue 1949-50: (See below)	
Business 1-Party 615 Mos. in Serv. @ \$5.00	3,075.00
Business 4-Party 269 Mos. in Serv. @ 4.00	1,076.00
Business 8-Party 62 Mos. in Serv. @ 3.50	217.00
Residence 1-Party 199 Mos. in Serv. @ 3.50	696.50
Residence 4-Party 3,071 Mos. in Serv. @ 2.50	7,677.50
Residence 8-Party 421 Mos. in Serv. @ 2.00	842.00
4,637 Mos. in Serv.	\$13,584.00
Extended Scope Service:	
Business 310 Mos. @ 6.50	\$2,015.00
Residence 2,161 Mos. @ 2.00	4,332.00
	\$6,347.00
Total	\$168,047.30
As shown on Exhibit 18, Column (4)	154,949.78
Difference	\$13,197.52

No estimate was made by applicant to cover up-grading of the service for ninety-six 4-party line subscribers who have requested one-party service, although this would result in additional annual revenue of \$1,152. No estimate was put forward by applicant for new revenue from mileage charges despite the fact that from January 1,

1949, to June 30, 1949, this revenue increased more than 10 per cent. Applicant has estimated an increase in exchange revenues from residence telephones of \$1,845.50 based upon 3,691 months at an increase of 50 cents per month in the face of a proposed increase for one-party residence telephones of one dollar per month.

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For the fiscal year ending June 30, 1950, applicant estimates additional exchange revenue at \$178,729.52 based upon its proposed rates, while our computation for such revenue is

\$190,395.48, or \$11,665.96 more than the amount submitted by applicant. The Commission's computation of this revenue is as follows:

Stations in service at 6-30-49	\$169,185.48
Estimated Additional Revenue Year ended 6-30-50:	
Business 1-Party 615 Mos. in Serv. @ \$8.00	4,920.00
Business 4-Party 269 Mos. in Serv. @ 6.00	1,614.00
Business 8-Party 62 Mos. in Serv. @ 4.50	279.00
Residence 1-Party 199 Mos. in Serv. @ 4.50	895.50
Residence 4-Party 3,071 Mos. in Serv. @ 3.00	9,213.00
Residence 8-Party 421 Mos. in Serv. @ 2.50	1,052.50
4,637	\$17,974.00
Extended Scope Service:	
Business 310 Mos. in Serv. @ 3.50	1,085.00
Residence 2,161 Mos. in Serv. @ 1.00	2,151.00
	\$3,236.00
Total	\$190,395.48
As shown by Exhibit 18	178,729.52
Difference	\$11,665.96

According to applicant its estimated operating expenses for the first year of dial operation will exceed actual operating expenses for the year ending June 30, 1949, by approximately \$10,000 and estimated operating expenses for the year ending June 30, 1950, will be approximately \$5,000 in excess of said actual expenses. The dial service was not instituted until May 14th of this year, so the increased operating expenses estimated by applicant are

hard to comprehend. This is reflected by the tabulation below which shows under column (1) the actual operating expenses for the year ended June 30, 1949, as taken from Exhibit 18, under column (2) the estimated operating expenses for one year of dial operation as taken from Exhibit 1, and under column (3) the estimated operating expenses for the fiscal year ending June 30, 1950, as taken from Exhibit 18.

	(1)	(2)	(3)
Maintenance	\$33,179.13	\$38,900.26	\$44,979.13
Depreciation	23,469.86	32,714.56	33,782.47
Traffic	46,836.86	20,201.68	26,597.57
Commercial and Office	37,717.71	39,866.76	44,117.71
General and Miscellaneous	12,768.96	12,842.97	12,768.96
Taxes	7,696.89	12,622.32	16,196.89
Federal Income Tax	8,202.24	22,536.55	6,176.10
Total	\$169,871.65	\$179,685.10	\$184,618.83

The annual report made by applicant to the Commission for 1948 reflects ad valorem taxes of \$2,768.28

but applicant estimates that like taxes for the year ending June 30, 1950 will be \$9,710, or an increase of 250.76 per

FLORIDA RAILROAD AND PUBLIC UTILITIES COMMISSION

cent. Acceptance of this increase is difficult when the physical plant and property increased only 67.68 per cent from June 30, 1948 to June 30, 1949. Further, applicant computed the Florida Utilities Tax at June 30, 1950, on total estimated operating revenues after the proposed increase without making any allowance for interstate toll revenues or uncollectible revenues. We could point out other calculations of the applicant considered by the Commission to be erroneous but that is unnecessary. The foregoing will suffice to show why the Commission looks askance at applicant's estimates and declines to predicate an increase in rates and charges upon them.

In the circumstances the Commission is constrained to construct the rate base upon the fiscal year ended June 30, 1949. The average investment in plant and equipment for the year 1948-1949 was \$580,634.45. The average reserve for depreciation was \$111,262.29, leaving \$469,372.16. Working capital is constructed as follows: total expenses were \$172,745.07, less depreciation of \$23,469.86 and miscellaneous deductions of \$18,772.55, giving out of pocket operating expenses aggregating \$130,502.66; therefore working capital (operating expenses for one month) would be \$10,875.22. As applicant is entitled to charge for exchange service before it is rendered this allowance for working capital may actually be somewhat excessive. This \$10,875.22 is then added to \$469,372.16, thus giving a net average investment and rate base of \$480,247.38.

Having constructed the rate base, or, to state it differently, having ascertained the fair value of the appli-

cant's property used and useful in furnishing the service, we must now determine the rate of return to which applicant is entitled. Of course, the principal question for consideration is whether the rates and charges authorized yield a reasonable return on the fair value of such property.

[1-3] Without a special contract for the rate hereof, the statutory legal rate of interest in Florida is 6 per cent and this interest rate applies irrespective of whether the venture requiring the interest be safe or perilous. This rate of interest is not controlling but can be considered in deciding upon a rate of return. We might point out, too, that the business of applicant is not a perilous venture. In fact, applicant enjoys a monopoly in and between the aforesaid communities and in consequence is not entitled to the rates received by speculative enterprises. A 6 per cent return upon the depreciated original cost of the property used and useful in furnishing service plus working capital has been advocated by steam railroads, which have no transportation monopoly. And other utilities advocate returns varying from 6 to 8 per cent, depending upon various factors but mainly upon the risks and uncertainties encountered.

There are elements other than those referred to above entering into a consideration of the rate of return, including general economic conditions, ability of the utility to attract capital, current cost of money, financial history of the utility, efficiency of management. A detailed presentation of the various factors weighed by the Commission would serve only to lengthen this order. It is enough to say that after giving consideration to the many factors

RE WINTER PARK TELEPH. CO.

involved, the Commission is of the opinion that rates which will yield a return of 6 per cent on the aforesaid rate base of \$480,247.38 is fair and reasonable and will suffice under prevailing conditions, and for a reasonable time in the future, to maintain applicant's credit.

Applicant has contended that its net operating income for the year ended June 30, 1949, was \$30,608.02; however, this figure overlooks a nonrecurring item of \$6,406.76 due to interest income on plant under construction. When this item is considered with the applicant's taxable income, which applicant states is \$29,626.86, Federal income taxes must be adjusted and the result is a tax of \$5,305.02 instead of the \$8,202.24 shown on applicant's Exhibit 18. When the difference between the last two sums, plus other interest of \$354.70, is added to the \$30,608.02 an adjusted net operating income in the amount of \$33,859.94 results for 1948-1949. Our adjustment of such net operating income and Federal income taxes is shown below:

Net Operating Income	\$30,608.02	
Add:		
Other interest	354.70	
Income tax adjustment below	2,897.22	3,251.92
Net Operating Income Adjusted ...	\$33,859.94	
<i>Federal Income Tax Adjustment</i>		
Taxable income as shown by file ..	\$29,626.86	
Less: Interest income on plant under construction—nonrecurring ..	6,406.76	
Taxable income adjusted	<u>\$23,220.10</u>	

Tax computation:	
Normal tax:	
Base	\$3,300.00
\$3220.10 @ 19%	611.82
Surtax:	
\$23,220.10 @ 6%	1,393.20
Federal Income Tax Adjusted ..	\$5,305.02
Tax as shown Exhibit 18	<u>8,202.24</u>
Difference due to interest income	\$2,897.22

On a 6 per cent return a net operating income of \$28,814.84 is required and the aforesaid adjusted net operating income exceeds this amount by \$5,045.10. But we do not overlook the fact that applicant converted from a common battery to a dial operation thereby increasing materially the investment at the close of the year ended June 30, 1949, as compared to the average investment during such fiscal year and since rates are fixed for the future this enhanced investment has been considered. So the average cost per station per month for the fiscal year ended June 30, 1949, was arrived at; namely, \$168.69, and in a similar manner it was determined that the cost at June 30, 1949, was \$237.97, or 41.0694 per cent greater than the average for such year. On these calculations additional net operating income is required to produce a 6 per cent return on the increased cost per station since conversion to dial operations and such additional income is ascertained by multiplying \$28,814.84 by .410694 and subtracting from the result the sum of \$5,045.10 giving \$6,788.98.

FLORIDA RAILROAD AND PUBLIC UTILITIES COMMISSION

The next step is to determine the additional gross revenue required to produce the additional net operating income of \$6,788.98. The divisor necessary to equate applicant's net operating income to gross revenue is 48.325 per cent and such percentage is arrived at as follows:

From	100% operating income
deduct 1% for uncollectible	
deduct 1.5% for state	
utility tax	2.5%
leaving	97.5%
Federal income tax at 53%	53 %
	51.675%
	100%
deduct	51.675%
leaving	48.325%

When \$6,788.98 are divided by the aforesaid equating figure of .48325 per cent, \$14,048.59 is the answer and constitutes the additional gross revenue requirements. To achieve the results set forth above the applicant should increase by 9.485 per cent its general exchange rates and charges in effect as of June 30, 1949 subject, however, to the limitations hereinafter stated regarding 4-party line service. Of course, this percentage increase is to be made applicable to the revenues produced by the exchange rates and charges in effect at June 30, 1949, instead of to the rates and charges themselves.

According to applicant's Exhibit 24 it had in service on June 30, 1949, business and residence 8-party line telephones totaling 287; however, the record reveals that in nearly every, if not all, cases the subscribers to these telephones are in rural areas and need only the minimum of telephone service. The same exhibit discloses that at the same date appli-

cant had in service a great many more 4-party line telephones. Applicant proposes to raise its 4-party residence rate from \$2.50 to \$3 monthly and 4-party business rate from \$4 to \$6 monthly. Most of the complaints received by the Commission relative to telephone service have to do with 4-party line service, which service is far from satisfactory at its best. We think applicant has failed to affirmatively show any justification for establishing the proposed increase for 4-party line service or any differential between the proposed rates for this service and other classes of service, and by reason of such failure the Commission is of the opinion that rates on 4-party line service should not be increased in excess of \$2.75 per month for 4-party line residence telephones and should not be increased in excess of \$5.50 per month for 4-party line business telephones.

From the record the Commission finds that:

(1) The net average investment of Winter Park Telephone Company in the sum of \$480,247.38 represents the rate base or fair value of the applicant's property used and useful in rendering telephone service and upon which the applicant is entitled to a fair return.

(2) Six per cent is a fair, reasonable, and compensatory rate of return to be allowed Winter Park Telephone Company upon said net average investment.

(3) In order to provide for such 6 per cent rate of return the revenues produced by the rates and charges of applicant as of June 30, 1949, should be increased by 9.485 per cent.

(4) Four-party line telephone rates should not be increased in excess of

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\$2.75 per month for 4-party line residence telephone service or in excess of \$5.50 for 4-party line business telephone service.

(5) The applicant should prepare and file a general schedule of rates and charges which will (a) produce an increase in revenue of 9.485 per cent over the revenue produced by its exchange rates and charges in effect as of June 30, 1949, and (b) prescribe rates on 4-party line business and residence service consistent with the aforesaid findings with respect thereto.

(6) The rates and charges authorized herein should become effective on or after January 1, 1950, with the bills on and after said date.

(7) The increase in exchange rates and charges authorized and prescribed by this order is justified and is fair and reasonable.

Now therefore, in consideration thereof, it is *Ordered, Adjudged, and Decreed* by the Florida Railroad and Public Utilities Commission that Winter Park Telephone Company is hereby authorized and directed to prepare and file with this Commission for its approval a general schedule of exchange rates and charges in accordance with the findings herein to become effective for billing periods on and after January 1, 1950, for bills covering service furnished on and after January 1, 1950.

WISCONSIN PUBLIC SERVICE COMMISSION

City of Mauston, Juneau County v. Commonwealth Telephone Company

2-U-2949

December 23, 1949

COMPLAINT against rates and service of telephone company;
dismissed with respect to rates and jurisdiction retained.

Return, § 6 — Basis — Comparison of future revenues with past expenses.

1. The projection of revenues and comparison with expenses for an earlier period do not afford a valid basis for comparison to show that the rate of return will be excessive, p. 62.

Return, § 111 — Telephone company.

2. A return of 5.9 per cent was considered reasonable for a telephone company, p. 62.

By the COMMISSION: Under date of January 26, 1949, the city of Maus-

ton filed a complaint with the Commission alleging that the service ren-

WISCONSIN PUBLIC SERVICE COMMISSION

dered by Commonwealth Telephone Company at its Mauston exchange was inadequate and therefore the rates for such service were wholly unreasonable.

The Commission's notice of investigation and hearing was issued February 4, 1949, and hearings in the docket were held March 2, 1949, and May 12, 1949 at Mauston before examiner Weston Wood.

APPEARANCES: City of Mauston, by Charles P. Curran, City Attorney, and Thomas J. Curran, of counsel; Commonwealth Telephone Company, by Schubring, Ryan, Peyerson & Sutherland, Attorneys by F. A. Brynolson and William Ryan, Madison.

Of the Commission staff: K. J. Jackson, rates and research department, and John A. Brady, engineering department.

Most of the testimony presented at the March 2nd and May 12th hearings dealt with the alleged inadequacy of service. On September 21, 1949, the matter was orally argued in connection with a similar case concerning the city of Wisconsin Dells (docket 2-U-2945). The argument related to the power of the Commission to order Commonwealth Telephone Company to take steps to convert its Mauston exchange or its Wisconsin Dells exchange from magneto equipment to common battery or dial. Following said argument the Commission concluded that the record should be supplemented by further evidence as to the ability of Commonwealth Telephone Company to render reasonably adequate service at its Mauston exchange through use of existing magneto facilities. By order dated Novem-

ber 25, 1949, the Commission reopened the proceeding for the purpose of obtaining such additional evidence. In the meanwhile, on September 9, 1949, Commonwealth Telephone Company filed a general application with the Commission (docket 2-U-3136) for a further increase in rates at its various exchanges, including Mauston.

While it is evident from the record that the matter of the level of rates at Mauston is directly involved with the adequacy of the service, it is also evident that consideration of the level of rates at Mauston separate and apart from the other 123 exchanges operated by Commonwealth Telephone Company raises a serious question of policy with respect to basic rate-making principles.

[1, 2] By order dated January 21, 1949, 78 PUR NS 437, the Commission authorized Commonwealth Telephone Company to increase rates at its various exchanges including Mauston. By its very nature, the fixing of rates involves predictions for the future. The evidence in this proceeding (docket 2-U-2949) does not fairly establish that the rates authorized on January 21, 1949, produce an excessive rate of return in 1949 at Mauston. Counsel for the city takes the rate base for the Mauston exchange established by the Commission in docket 2-U-2390, which is \$108,566, and then claims that on the basis of March, 1949, operating revenue projected on a full year basis as compared to expenses for the year ending December 31, 1948, the company will earn a return in excess of 13 per cent on the rate base as found by the Commission. This is not correct. The projection

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of revenues and comparison with expenses for an earlier period does not afford a valid basis for comparison. In any event, the actual rate of return on this rate base, according to financial data now before the Commission, after a downward adjustment of maintenance expenses from \$11,906 to \$9,304 is 5.9 per cent which is not an excessive rate of return for the Mauston exchange of the Commonwealth Telephone Company.

Essentially, the city's principal challenge to the reasonableness of the rates at Mauston is the relationship of such rates to the quality of service furnished. The Wisconsin Statutes are silent on this exact point. They do require the rendition of reasonably adequate service and that question is an issue in the present case. In view of the pendency of proceedings in docket 2-U-3136 and the further proceedings in this docket (2-U-2949), and in view of the broad scope of the issues raised in this proceeding which are of material concern to all of the commu-

nities served by Commonwealth Telephone Company, the Commission deems it appropriate and advisable to dismiss the proceedings in this docket in so far as they relate to the level of rates. The level of rates at Mauston will be considered under the general proceedings in docket 2-U-3136.

The Commission finds:

1. That the rate schedule authorized on January 21, 1949, in docket 2-U-2390 and presently in force for service at the Mauston exchange of Commonwealth Telephone Company has not produced an excessive rate of return on the rate base for the Mauston exchange as determined by the Commission in docket 2-U-2390.

The Commission concludes:

That an order should be entered dismissing only that portion of the proceeding herein which relates to the reasonableness of rates charged at the Mauston exchange of the Commonwealth Telephone Company and retaining jurisdiction as to the adequacy of service and facilities.

UTAH PUBLIC SERVICE COMMISSION

Re Pacific Greyhound Lines

Case No. 3403
January 10, 1950

APPPLICATION by bus company for authority to increase rates for transportation of newspapers and flowers; denied.

Rates, \$ 650 — Basis for increase — Absence of supporting evidence.

The Commission may not grant increases in rates except upon a showing that such increases are justified.

UTAH PUBLIC SERVICE COMMISSION

APPEARANCES: Earl A. Bagby, for petitioner; Calvin W. Rawlings, for protestants, Utah State Florists Association; John D. Rice, for the Salt Lake Tribune and the Salt Lake Telegram; Chas. A. Root, for Public Service Commission of Utah.

By the COMMISSION: This application was filed with the Commission on May 24, 1949. The application seeks an increase in the rates and charges on newspapers and flowers.

It is shown that the rates on newspapers now in effect were established about seventeen years ago and no increase therein has taken effect since that time.

The applicant, Pacific Greyhound Lines, is a common carrier of passengers by motor vehicle from Salt Lake City through Wendover, Utah, to San Francisco, California.

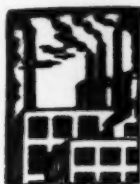
As a matter of public service it also delivers newspapers and flowers and other emergency express shipments of various commodities to the extent that such emergency shipments can be handled without interfering with the convenience and safety of its passengers.

The Pacific Greyhound Lines oper-

ate in interstate commerce as well as intrastate within the state of Utah. The rates applied for on intrastate commerce are now in effect on interstate commerce. No attempt was made to show that the handling of newspapers and flowers was unprofitable or was performed at lower rates than are profitable. No testimony or evidence was introduced showing that intrastate in Utah shipments of these commodities have been received to the extent of interfering with the prompt and convenient movement of passengers. The evidence shows that the volume of such shipments is small and inconsequential but that the services of Greyhound in transporting these shipments meet a vital public need. Thus the Commission is left without any evidence to justify the increases sought and under the Utah laws, we cannot grant increases in rates and charges except upon a showing that such increases are justified.

From the evidence adduced in this case, the Commission finds that the increases petitioned for have not been justified and must be denied.

An appropriate order follows. [Order omitted.]



Industrial Progress

A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.



New \$6,000,000 Plant to Be Built by Florida Pwr. & Lt.

THE Florida Power and Light Company plans to build an additional \$6,000,000 generating unit, to be completed in 1952, according to an announcement by McGregor Smith, president. It will be located wherever population growth demands. With its completion the company will have increased its plant capacity by two and one-half times since V-J Day.

This expansion is in addition to the company's \$108,000,000 postwar construction program which runs through 1951 and which has already more than doubled its generating capacity since the end of the war.

Power Equipment Company To Represent Springfield

SPRINGFIELD BOILER Co., Springfield, Ill., announces the appointment of the Power Equipment Company, 4706 Holly street, Kansas City 2, Mo., as sales representatives for Springfield water tube boilers in the Missouri valley and western plains area north of Texas, including the Rocky Mountain area and the States of Wyoming, Montana, and North Dakota.

Combustion-Eng. Appointment

COMBUSTION ENGINEERING - SUPERHEATER, Inc., has appointed Carl E. Miller to the engineering staff of its industrial department. Mr. Miller was formerly technical advisor in research and development on coal, gas, and petroleum technology at Battelle Memorial Institute and served as special consultant on fuels to the Economic Cooperation Administration in Europe.

Mr. Miller is well known in the utilities and power field, having been associated for eight

years with the Potomac Electric Power Company and for three years with the Northern Indiana Public Service Company. During World War II he served in the Office of the Chief of Engineers of the War Department as chief of the heating section and assistant chief of the utilities branch.

New Eastern Manager for Worthington Engine Division

THE appointment of A. M. Boehm as eastern manager, engine division, has been announced by John J. Summersby, vice president in charge of sales, Worthington Pump and Machinery Corporation. Mr. Boehm will handle sales negotiations for gas and oil pipe lines equipment and oil and gas engines for all services. He will continue to make the corporation's New York district office his headquarters.

Mr. Boehm has served Worthington for twenty-five years as an engine sales specialist assigned to various district offices throughout the country. He succeeds W. L. Russell who has been assigned to handle Canadian sales for the John Inglis Company, Worthington's Canadian associate.

Bulletin on Aluminum Paints

"COMMON Sense Will Tell You, One Aluminum Paint Can't Do Everything" starts out a very interesting folder on specialty aluminum paints just released by The Skybryte Company, Cleveland 14, Ohio. The company claims to have specialized in maintenance paints since 1917.

The folder describes in detail even to prices, six special Skyco aluminum paints: Rust-Tox for applying directly over rusted surfaces; Heat-resisting interior aluminum paint; Heat-

(Continued on Page 22)

GRUENDLER CRAFTSMANSHIP SERVING INDUSTRY 46 YEARS

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resisting exterior aluminum paint; Acid and alkali resisting aluminum paint; Fence-Bond for painting rusted chain link fences; and Utility aluminum paint.

Motorola Installs Two-way Radio for Illinois Power

WHAT is claimed to be one of the largest power utility two-way radio installations in history has been announced by Motorola Inc. The Illinois Power Company, has contracted with Motorola for 193 mobile units and 12 fixed station units, all remotely controlled. This two-way radio system, covering central Illinois, will be used to communicate between the company's service areas and mobile units.

One of the interesting aspects of this system is that actual field surveys were conducted to determine primary coverage areas and a large balloon was used to elevate transmitting and receiving equipment to the height necessary to secure the desired coverage. Tower heights were also determined by this method.

This is the second large utility company to install two-way radio on a lease program utilizing Motorola equipment.

New 4-Ton Heavyweight Truck Unveiled by Dodge

DODGE has expanded its line of "Job-Rated" trucks in the high tonnage field to include a rugged 4-ton heavyweight.

L. L. Colbert, president of the Dodge Division, Chrysler Corporation, recently announced that the company is introducing the entirely new and more powerful truck in 30 basic models. The 396 different basic truck models now offered by Dodge cover nearly 99 per cent of all hauling needs.

Designated as the Y and YA models, the new trucks have a nominal rating of four tons, a gross combination weight of 50,000 pounds, and a gross vehicle weight of 28,000 pounds—an increase of 5,000 pounds over the 23,000-pound maximum GVW formerly offered by Dodge.

Power reel Designed for Handling Heavy Electrical Cable

INDUSTRIAL ELECTRICAL WORKS, Omaha, Nebraska, manufacturer of electrical equipment, is introducing a new and improved model of its Power reel which is expressly designed for simplifying the handling of long heavy electrical cables.

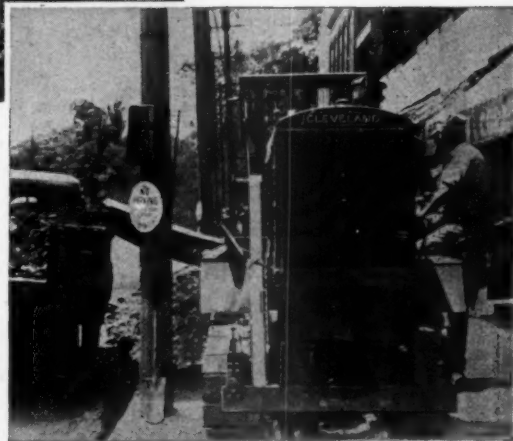
The new model 3000 series Power reel offers a ready solution to all phases of this problem of handling heavy cables, the manufacturer claims. It is portable, saves labor, time, eliminates excessive cable wear, boosts cable-handling efficiency. A new 2-wheel hand truck, consisting of a handlebar and separate axle with two rubber-tired wheels made for attachment to the new Power reel makes it easy for one man to handle the unit when reel is loaded to capacity. These new attachments are available as an optional extra. When used without the hand truck, the twin handles of the combination

(Continued on Page 24)

CLEVELANDS

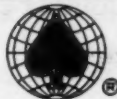
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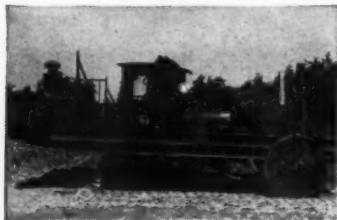


handle and cord guide make two-man carrying of heavy cable easy work.

Descriptive literature and prices are available on request from Department A105, Industrial Electrical Works, 1509 Chicago street, Omaha 2, Nebraska.

Heavy-duty Machine for Clearing Land

THE Bushwacker, "a mowing machine for trees," is now in production at the Fort Wayne, Indiana plant of the American Steel



Dredge Company, Inc., according to Walter W. Walb, president of the company. The production model evolved from five machines that have been built and operated during the past six years.

This new machine is a rather substantial piece of equipment, weighing 14 tons, mounted on a crawler-tractor unit and powered by a 168 h.p. Diesel engine. It is 10 feet wide, 21½

feet long overall and clears a swath 6 feet wide at a speed of about a mile and a half per hour.

In one pass over a densely wooded area, trees up to eight inches in diameter and all undergrowth are reduced to small fragments and deposited upon the ground. The topsoil is not disturbed. Regrowth is retarded, due to the fragmentation of trunk fibers at the root junctures.

The shredded residue left upon the ground serves as a mulch and eventually decays, adding humus to the soil. Erosion is prevented while moisture tends to remain in the soil, favoring the rapid growth of native grasses on the cleared areas.

The manufacturer reports the successful use of the Bushwacker pre-production machines on several land clearing projects which include fire breaks, pole line clearance and "brushing," highway and pipeline right-of-ways and building sites.

G-E Issues Booklet on Gas-filled Cables

A NEW booklet, "Gas-filled Cables," directed to utilities and their engineers, has been published by the construction materials department of General Electric Company. Much detailed, technical information is contained in this publication on low pressure, medium pressure, and high pressure gas-filled cables, including a discussion on operation, application, and performance.

The booklet is available from construction materials advertising division at Bridgeport.

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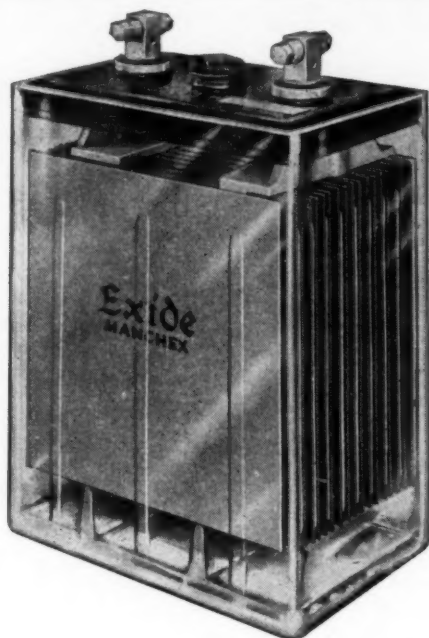
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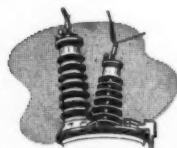
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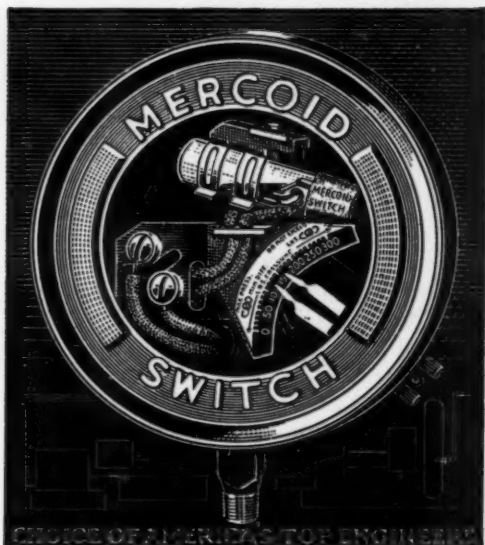
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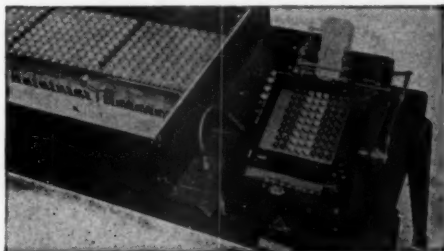
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The Bill Frequency Analyzer—which we developed especially for consumers' usage data—can analyze as many as 200,000 of your bills in one day. Consequently, the cost to you is but a tiny fraction of a cent per item.

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"The One Step Method of Bill Analysis" is an informative booklet that tells you more about this accurate and economical method of compiling consumers' usage data. Send for it now.



This Bill Frequency Analyzer—developed especially for utility usage data—automatically classifies and adds in 300 registers in one step.

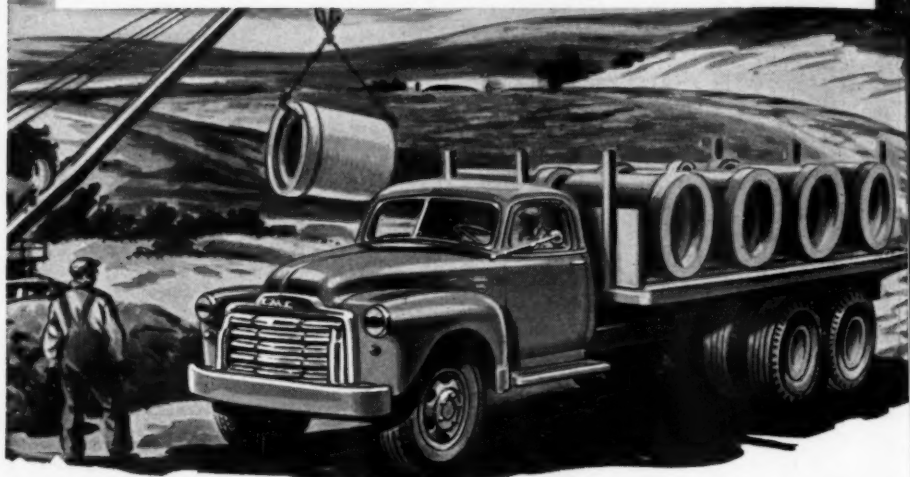
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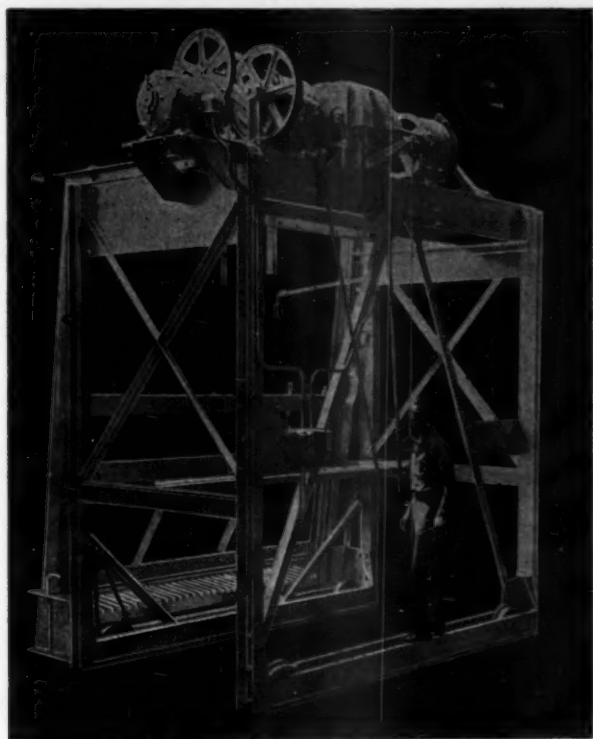
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